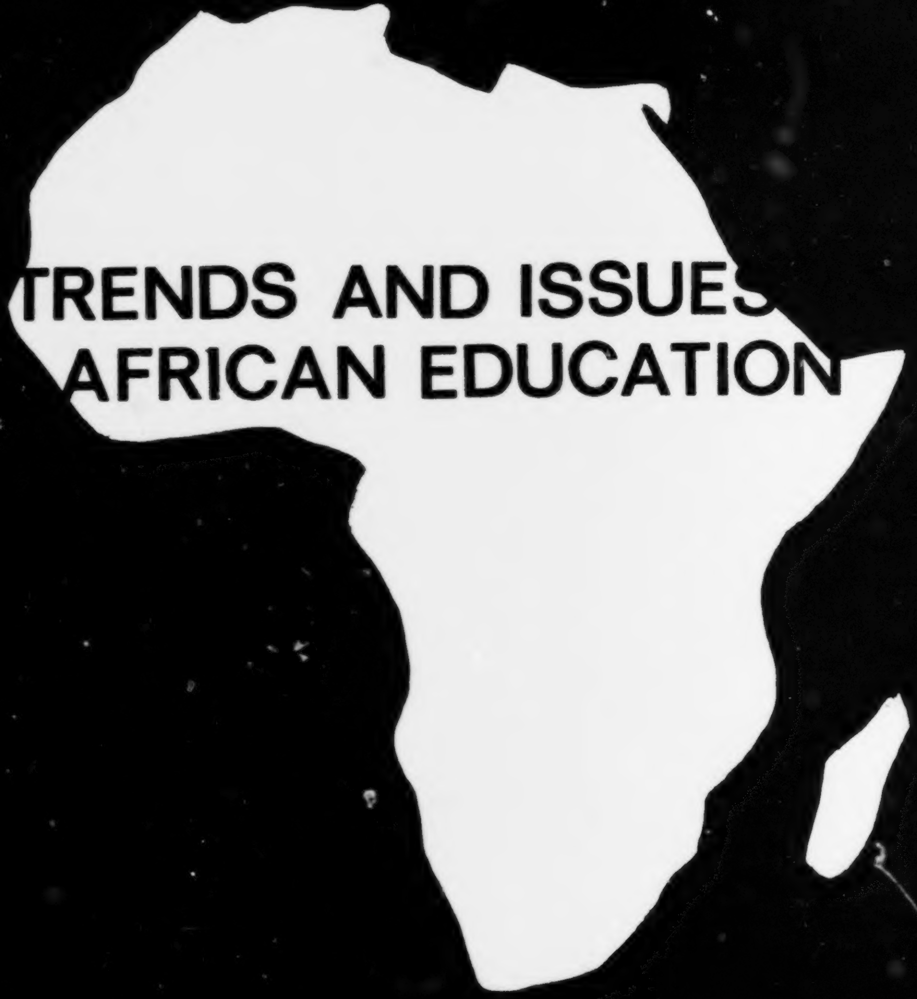

TRENDS AND ISSUES
AFRICAN EDUCATION

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Education Monograph No. 5

Trends and Issues in African Education

In this Issue focus on:

- Educational Planning: Concept and practices
- Curriculum Development and Evaluation
- Teacher Education

December 1987

UNITED NATIONS ECONOMIC
COMMISSION FOR AFRICA

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FORWORD

This is the fifth volume of the series of the Education Monographs: Trends and Issues in African Education. The contributions in this volume are edited papers by the staff of the Human Resources Development Section of the Public Administration, Management and Manpower Division of ECA and by academics from the Universities of Malawi and Zambia. All the papers have been used extensively as working documents during education staff development workshops on educational planning, educational administration teacher education and curriculum development and evaluation, held in Malawi, Zambia and Lesotho.

The first four chapters focus attention on the approaches to and the objectives, policy aspects and techniques of educational planning.

Two other chapters (5 and 6) deal with the issue of curriculum development and evaluation. The first of these two examines the concept of curriculum and thereafter analyses the various stages of developing a curriculum. Chapter 6 looks at what should be done in evaluating an educational system. 6

Finally chapter 7 takes up the question of teacher education i.e. what it is and how to go about it. It raises the central issue as to whether teaching is a profession or not, and also proposes a code of ethics for teachers.

These are but a few of the various issues raised in the articles of this fifth Monograph on Education in Africa. It is hoped that they will provoke some thinking and comments by our readers who may wish to send their views to:

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CHAPTER 1

Major Approaches to Educational Planning

Major Approaches to Educational Planning

I. Introduction

Before examining some of the major approaches to educational planning, it is necessary at this point to say a work about the kinds of activities which take place in amny countries in the name of educational planning, the complixity of educational planning, and the problems and issues one has to contend with when planning. There are various kinds of educational planning which are in use today; we can distinguish three main types.

1. The first is planning with adequate facts - normally supported by voluminous statistics.

   This type is the most desirable, but is is the one least likely to be carried out simply because, in practice, the necessary facts and statistical data are seldom available.

2. The second type of planning is the one that is called planning without facts, a very realistic title because it corresponds to a very realistic type of planning, In many cases it is simply impossible to ascertain all the facts ideally necessary for perfect planning.

3. The third type of planning is one that is known as planning without purpose or planning for the sake of planning.

Unfortunately, there is a good deal of planning without purpose going on today, particularly the kind which makes use of the more questionable techniques of highly theoretical mathematical models and in which the basic objectives get lost in a display of methodological fireworks.

But whatever planning is used, whether it be with or without facts, the importance of strategy building is fundamental to the process. In the context of educational planning, this involves, first, the setting of targets. This means not projections and most emphatically not forecasts, but the imparting of directions which are to govern subsequent actions.

The targets can, certainly, be modified from time to time in accordance with experience gained in the course of the planning process.

Reaching the targets implies a plan, a programme for action based upon a choice of priorities. Priorities are then the second vital element in stragegy building.

No country can have all the education which it thinks necessary or desirable. Rather, any country must promote or emphasize programmes which have high priority and discard or tone down programmes which have low priority.

Strategy building thus involves the making of assumptions, which may only sometimes be correct and which often must be based on intuitive judgements.

It involves, above all, the making of choices, sometimes very difficult choices, and planners, particularly educational planners, often fail to realize that the choice of one objective implies the rejection of others. If you choose to put your resources into one area, you thereby choose not to put them in other areas.

As far as educational development is concerned, it is proposed to discuss six critical areas of choice without indicating what the actual choice should be since this depends a great deal on the real conditions of a particular country. This is simply to demonstrate the complexity of the educational planning process.

(1) The Choice Between the Levels of Education

The first choice is between the levels of education. What emphasis should be made on primary, secondary and higher education when making investments in education?

You can give top priority to universal primary education, but only at the expense of secondary and higher education.

Or top priority can be given to secondary education, second priority to primary education, and third priority to higher education, but you cannot give top priority simultaneously to primary, secondary and higher education. No strategy of educational planning is complete until this choice has been made.

(2) The Choice Between Quality and Numbers

The second and even more fundamental choice is that between quality and numbers, Which is to be emphasized? In the field of primary education, for instance, do you aim at compulsory universal schooling, with few textbooks, poor teaching methods, and teachers who will necessarily have very low qualifications?

Or do you want well-qualified teachers, better textbooks and better teaching methods?

If you choose the second alternative, economic necessities may force you to sacrifice numbers in order to achieve quality, that is, to sacrifice the ideal of universal primary education.

(3) Science and Technology v. the Liberal Arts

The third choice, more particularly in the field of higher education, concerns the balance between science and technology, on one hand, and the liberal arts, on the other.

What proportion of your students should attend science and engineering faculties, and what proportion should study the arts, humanities and law?

This is not a question of the intrinsic value of these subjects, but rather one of the practical needs of the country.

If you decide to increase the number of science and engineering students, you are immediately faced with a thorny financial and political problem.

Education in science and engineering costs roughly four times more per student than education in the arts, humanities and law.

Financial necessities may therefore compel you to balance any expansion in science and engineering studies by a fourfold contraction of liberal arts studies. It is easy to imagine the tremendous political and social pressures against such a move.

In fact, the choice between science and technology and the liberal arts becomes to some extent a choice between quality and numbers.

Science and engineering require very high standards of teaching, more expensive facilities, and many more full-time teachers.

In the non-communist world, about 25 per cent of the student body is enrolled at science and engineering faculties, and in communist countries, the proportion varies between 45 and 50 per cent.

Of all the continents, Latin America has the lowest proportion of students in science and engineering - somewhere around 15 per cent. The educational planner must keep such figures in mind when deciding on the proper balance between scientific and non-scientific education.

(4) Formal Education v. Non-Formal Training

The fourth area of choice lies in the relative emphasis upon formal education, that is, education before employment, and training by employing institutions, or on-the-job training.

This problem becomes particularly acute at the craftsman level. It has been amply demonstrated that pre-employment training of craftsmen in secondary schools is a poor investment in mov most countries.

It is far more advantageous to provide potential craftsmen with general secondary education and then develop their skills on the job.

In other words, normal pre-employment education should aim at forming trainable people, while the task of developing specific skills should be the responsibility of employers, both public and private.

Shifting the job of training onto the shoulders of the employers makes more funds available for formal general education. However, the choice between pre-employment vocational education and training on the job is always a difficult one, and the balance between the two is struck differently in different countries.

(5) The Choice of Incentives

The fifth area of choice, which is of great importance to the general planner as well as to the educational planner, is that of incentives.

To get people into certain occupations do you rely on the free play of the market or do you provide incentives and manipulate them constantly, as the situation demands, so as to create differential salary scales and raise the financial rewards and status of particular types of jobs?

This is a vital and very difficult problem in many countries. In Iran, for example, the proportion of doctors to nurses is 10 to 1, where it should be about 1 to 10, The reason for this is that the salary and status of nurses are so low that nobody wants to enter the nursing profession. Similar considerations apply to technicians, engineering assistants and agricultural assistants in many countries.

As a result, it is often more important for the educational system to produce nurses rather than doctors, or engineering and agricultural assistants rather than graduate engineers and agronomists.

Confronted with a situation of this kind you can leave the differentials in pay and status as they are, or you can work out a new system of remuneration which rewards the technician willing to dirty his hands in the factory as much as the graduate engineer who refuses to budge from his office, and the medical technician who goes into the bush to treat people with antibiotics and promote measures of public health as much as the doctor who refuses to move out of the urban centre.

These are difficult choices to make, but unless they are made thoughtfully, great amounts of money will be wasted. The study of incentives is an integral and indispensible part of educational planning, and a planner who ignores the incentives structure of his society is like an ostrich hiding his head in the sand.

(6) The Purpose of Education

The sixth and last area of choice is concerned with the very purpose of education. Should education aim at satisfying the needs, desires and hopes of individuals, or should it be directed towards meeting the needs of the state?

Countries professing the so called liberal philosophy would naturally favour the first alternative, and those professing the communist philosophy would choose the second, but the problem is not nearly so simple in the new, developing countries.

II. Analysis of some of the approaches to Educational planning

In the foregoing pages, an examination has been made of the types of planning in use and what choices the planner has to make. This section reviews the major approaches to educational planning in terms of their principal strengths and weaknesses. The literature concerning these approaches is very extensive and this work cannot presume to review each definitively. The brief explanations probably do the approaches an injustice by omitting many subtle points, but a much fuller understanding of the approaches can be found in the many books available on the subject.

Quantitative Projections

Studies of educational planning have rarely dignified with exercises in applied arthmetic that are carried out in probably the majority of the Ministries of Education throughout the world in the name of educational planning. This "approach" consists mainly in projecting the growth of the existing system, largely by extrapolating recent trends five or perhaps ten years into the future. Some attempts have been made to refine the methods of projection and to urge that questions about efficiency, costs, and possible alternative programmes be asked in conjunction with the projection exercises. But there is no foundation for analysis and choice in such planning: it merely projects more of the existing forms of education. One should perhaps not be too hasty in condemning this approach. It does not involve analysis of alternatives. It does not make use of economic science to inform investment choices. It is, however, closely related to the problems and aims of the sector and its many practitioners often take into account the nature, content, and the complex articulation of the subsector activities that constitute the sector programme. This cannot be said of all approaches.

Much of the technical assistance provided to education planning in the nineteen sixties aimed at improving the basic data and methodologies for quantitative projections. Given that many countries lacked basic data on enrollment, wastage, teacher supplies, and so on, these efforts were not without benefits. Such data and projections, while a necessary condition for planning, are far from a sufficient condition. One obvious shortcoming is that some strategy for educational development was needed, as opposed to simply projecting increases in the existing system. Early attempts to provide a strategy were often based upon some assessment of "national needs" or "social demand."

Social Demand

A modification of the quantitative projection approach is found where countries have adopted major targets, often on the basis of political desirablity or for international prestige and compliance with regional "norms." Without analysis of these targets to determine whether they are economically or culturally desirable (or, for that matter, even feasible). Such targets as "universal primary education" by a given date, or some arbitarary proportion of secondary enrollment in vocational schools by a certain time are handed down from above. They may be based on popular pressure for more school places or on someone's estimate that achieving the target would be beneficial. The task of the planner is to determine what rates of growth in enrolment, pupil place places available, teachers, and other inputs would be necessary to meet the "requirement" or "demand," Again no optimizing or suboptimizing technique is applied. The existing education system is simply expanded in much the same form until the target is reached (or perhaps a shift in main ingredients is made, with the ingredients remaining the same). The so-called international comparisons approach is a modification of the same sort of planning. Here the targets are derived from other countries' histories at times that are assumed to be analogous to the stage of development desired at the end of the planning period. The comparability of two countries in terms of skill and education patterns is highly questionable under any circumstances, thus the basic assumption is weak. Moreover, this is another case of an approach based on "need," without assessment of benefits or opportunity costs.

The social demand approach to planning offers one way to formulate a general stragegy of educational development. The strategy is based upon political consideration (for example, the desirability of universal primary education) or on aspirations to reach the status of some country chosen as an analog. These are not true strategies; they are more nearly arbitrary targets. In addition they have often proved infeasible, or even determental because they created stresses and distortions. There is a need to set forth a strategy for educational development, but this can and should be based on factors other than arbitrary assessments of social demand.

A number of computable models based upon input-output techniques have been developed. These are largely mathematical statements of the two planning approaches above. They plot the quantitative development of the education system and permit identification of bottlenecks in its development. At best they can be used to indicate (very quickly if computerized) the implications of changes in major assumptions or policies on enrollment, teacher requirements, and costs. In this respect, such deterministic models are handy, but they do not aid the decision maker in knowing whether such ca changes are economically or socially beneficial. Nor do they cast any light on changes that might be made within any of the major compnents in system to improve its effectiveness.

Manpower Analysis

Manpower studies have been used to indicate needs for educated manpower in various developing countries. The principal points raised here will be critical ones, although there are ways in which relating the outputs of the education sector to employment opportunities in the economy is useful. The manpower analysis approach to education sector planning can be set forth in a few propositions.

Proposition 1. An important objective of the education system is to provide the educated manpower needed in order to achieve satisfactory growth of economic output. Humanistic critics argue that manpower analysis view this as the only objective. Economists argue somewhat differently that the estimates of "need" discussed below are of questionable validity, and that the economic benefits of producing educated graduates of various types should be measured against the costs of providing the education. Manpower analysts tend to view their estimates of requirements by education level as absolutes, regardless of benefits and costs. There is also nothing in the manpower approach that would indicate whether alternative means of providing the education needs might be preferable to existing educational practices. The only guidance offered to sectoral planners is on the numbers of graduates of each type that will be required.

Proposition 2. Educational "needs" are a function of employment by occupation; that is, there are fairly clear relationships between occupations and the education levels of the persons employed in them. These relationships amount to educational requirement coefficients by occupation. This proposition rests on the assumption that there is little or no substitutability between skills. While there are, to be sure, some relationships between education levels and occupations (especially for some technical specialities and professions requiring certification) it is also possible to observe a high degree of skill substitution in any portion of a labour force.* Although primary-school dropouts cannot be engineers, to cite an extreme case, it is entirely possible for a graduate from an "academic" high school to work at a skilled trade, or for a trained teacher to work as a dry goods clerk. This proposition also ignores the importance of on-job training as a source of highly skilled workmen, assuming that virtually all skills must be formally trained. This is one of the weakest points in the manpower approach. Its weakness is particularly evident when manpower planners attempt to work backward from occupational projections to estimates of education needs.

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*The assumption of low skill substitution affects the nature of the education and training provided. The higher the degree of skill substitution, the more general education can be. Very low substitutability implies that each worker must be specifically trained for his occupation.

Measurement of the educational requirements coefficients is based on surveys of the employed labour force in the usual practice. Surveys of employment by economic sector by occupation by education level yield profiles of the educational distribution of the labour force. Here there are simple problems of measurement. Labour force data in developing countries are far less complete than in developed countries. Sampling and reporting errors may be magnified many times and the classifications of workers' education and occupation are usually crude. In the end, however, manpower studies state that certain proportions of each occupation in each sector (for example, "craftsmen and production process workers" in the industrial sector) have various levels of education (expressed either in years of schooling or by level of education completed).

In addition to the problem of basic measurement there are serious problems that arise in attempting to project the future. The present educational profile of the labour force in developing country is hardly a model for what is desired in the future, therefore some attempt is usually made to allow for general educational upgrading. This can be done either on the basis of arbitrary assumptions or by comparison with the education-by-occupation profiles in more advanced countries (or in the more modern firms in the same country). International comparisons offer a very weak and potentially misleading basis for estimation because of differences (even between countries with similar incomes per capita) in the supplies of education available and productive technologies. "Leading firm" comparisons may be somewhat better but have to be used with care and involve a substantial element of judgment.

Proposition 3. Employment by occupation is a function of total economic output by sector and changes in productivity in each sector; that is you can project occupational distributions on the basis of projections of total sectoral output, adjusted for changes in output per employee. This means that manpower projections are only as strong as the underlying projections of output and estimates of productivity change. Such projections are frequently wide of the mark by a considerable margin. There are tendencies for output projections to be high (due to optimism, politics, and so on) and for labour productivity estimates to be low, both of which bias manpower estimates upward.

There are other difficulties that affect this proposition. It assumes that the occupational distribution of a sector's labour force will remain the same even though the sector is likely to experience significant technological change. This is at least questionable. And even if one can accept the pro productivity estimate arrived at for the sector, this is an average productivity figure that may obscure differences between productivity trends for different occupations. One assumes that the output estimates upon which manpower projections are based are expressed in constant prices, so that monetary increases in the value of sectoral output do not create an upward bias in the manpower estimates.

This proposition again raises problems of measurement. In this case the problems involve the employment and occupation estimates by sector. Employment and occupation surveys have limitations of coverage. Most surveys cover large firms, the industrial sectors, and public employment fairly completely but are weak in their coverage of small enterprises and of the agricultural and entrants to the labour force for example, could be valuable; especially when used in conjunction with other information such as investigation of the costs and benefits of various types of education. But national level manpower planning, as usually practiced, has serious weaknesses and provides information on only a few variables (enrolment and graduates "needed").

Rate-of-Return Analysis

Of the most frequently used approaches to educational planning, only rate-of-return analysis is based upon economic analysis. In essence, rate-of-return analysis says that resources should be invested in those types and levels of education that produce the greatest benefits in relation to their costs.* The rate-of-return analysis approach can be summarized in the propositions set forth below.

Proposition 1. Income is a function of workers' productivity and wages tend to equal the marginal productivity of the worker. One criticism of rate-of-return an analysis is that wages often do not equal marginal productivity but are instead "administered prices." This may be especially true in developing countries where labour market mechanisms do not function smoothly. For example, public sector employment represents a large portion of total employment in many developing countries, and wages tend to diverge more widely from marginal productivity in public employment. Other reasons why wages may depart from marginal productivity are the role of family connections, "snob value" associated with education, nepotism, entry restrictions to some occupations, and so on. While there are many labour market imperfections, it can be well argued that the strong association observed between education and income is itself evidence in favour of the marginal productivity assumption. This argument would seem to depend upon a relationship between education and physical productivity, an area in which empirical evidence is very limited, but the assumption is adequately justified, and the rate-of-return calculations based upon observed wage rates are valid. However, the arguments against this assumption "carry real force" in underdeveloped countries.

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*Private rates of return are calculated on the basis of after tax earnings attributable to obtaining an additional increment of education and the out-of-pocket costs to the individual. Social rates of return are based on before-tax income benefits and the total costs to society of providing the schooling. Although private benefits and costs provide useful information, public investment decisions are based upon comparisons of social benefits and costs. Accepted practice now is to compare investments in terms of their internal rates of return; that is, the rate of discount which, when applied to the lifetime benefit stream attributable to the education, equates the benefits with the costs of the education. This criterion avoids the problems of comparing projects of different scale and of the choice of an appropriate discount rate.

commercial sectors. Often even the number of firms with fewer than five or ten employees is not known, so stratification of sample surveys is difficult. And in many developing countries, employment in noncommercial or smallholder agriculture is extremely large. It is, moreover, highly probably that there are systematic differences between the occupation and education distributions of covered and noncovered firms. These data problems are sometimes dealt with on the basis of assumptions (for example, assume four years of education for all agricultural smallholders). They can of course be overcome through more careful and extensive surveying, but only at very high cost.

Proposition 4. The net change in employment by occupation can be calculated by subtracting present employment by occupation (determined by establishment surveys of employers) from the projected occupational distribution (as determined in proposition 3 above). The problems affecting the determination of the two major quantities affect the reliability of the difference calculation.

Proposition 5. The sum of the net increase in employment by occupation plus estimated attrition from the labour force (for reasons of death, retirement, or other labour force withdrawals, also broken down by occupation) equals total demand for new entrants to the labour force. Thus if the employment growth figures show a net increase of x master carpenters and another y master carpenters during the period (and implicitly the schools should train that many). This is a major source of upward bias in manpower estimates. They show net change in the full range of skills and translate tnese changes into education needs. Carpenters, to take this example, cannot be trained in vocational schools to enter the labour force as fully qualified "master" carpenters. Opportunities for new entrants to the labour force are not found at all levels of the skill hierarchy. In all but a few cases, recent graduates enter the labour force via a relatively low-skilled or "entry-level" job. They advance to higher positions via on-job learning and internal promotion. Estimates of skill "needs" thus tend to be biased toward higher skills while employment opportunities are all in the lowest ranks of the hierarchy.

Proposition 6. The outputs of the education system (graduates by level plus dropouts) that are "needed" to attain the economic output targets are determined by multiplying the demand for new entrants in each occupation by the educational requirement coefficients for each occupation. In other words, the total number of each sort of graduates during the plan period should match the "need" for new entrants having the relevant education. If there are surpluses or shortfalls, enrolment should be adjusted to bring outputs into balance with needs. Various complexities enter the caluclations here. One involves the estimated unemployment rate at the end of the plan period. The economic growth and productivity change projections on which manpower estimates are based may either aim at full employment targets or they may be varied to indicate the probable employment implications of alternative growth rates. In either event, Proposition 2. Education has an effect upon productivity, and improving productivity (and earnings) is an important objective of educational policy. The arguments against this proposition are that there are many benefits -- personal, social, and external economic benefits -- that are not measured by income differences, and that these are in fact more important than the directly observable income benefits. Some calculations of rates of return attempt to adjust for the "consumption benefits" or education (for example, greater enjoyment of life as a result of being educated), although the methods are fairly arbitrary. Allowance for social benefits such as more effective citizenship, lower birth rates, and so on, are difficult to make. There may also be external costs of education in developing countries, as for example the strong relationships between education and migration to already-overcrowded metropolitan areas. In general, external benefits outweigh external costs and thus tend to increase the rates of return. The existence of externalities casts some doubt, however, upon the precision of measurements of rates of return.

Proposition 3. There is a high degree of substitutability between different skills or different levels of education. In other words, persons will seek employment in occupations that offer the highest pay, even though they may not have been specifically trained for the new occupation. This assumption is exactly the opposite to the manpower approach's assumption of very low elasticity of substitution. The high-substitutability assumption conforms more closely to the realities of the labour market, although perfect elasticity is probably not achieved. Substitution of skills or of education takes place within relative ranges. A high-school graduate can perform a wide range of occupations around the middle level of the skill hierarchy but he is unlikely to dig ditches and unable to function as a certified professional in medicine, engineering, law, and so on.

Proposition 4. The economic benefits of education can be measured by the differences in average incomes between groups of persons with different education levels. That is to say, adding an increment of education (for instance, going to secondary school instead of stopping after primary school) results in greater income; and the difference between the lifetime earnings streams of persons with different education levels, discounted to present value, constitute the benefits to the added education. One of the most serious objections to rate-of-return analysis arises at this point. Observed income differentials are based upon the relative scarcities of different sorts of education in the labour market. If the supply of a given sort of education changes substantially, the earnings associated with it are also likely to change. In developing countries, where stocks of educated manpower are small and substantial changes in the outputs of different levels of education occur rapidly, the relative returns to different levels of education are especially subject to change. Rates of return observed from cross-sectional studies at a point in time reflect points on the demand curves for different sorts of education but do not indicate the slopes of these demand curves. The findings indicate that planners should allocate more resources to the higher-return forms of education but do not indicate how much more. One approach to this problem is to repeat the rate-of-return studies periodically in order to see how rates of return are changing. The lower the elasticity, the more rapidly the rates of return are expected to change in response to supply changes. This technique "takes into account explicitly the diminishing returns effect of the growth of the educational system on its own profitability. This provides one answer to the problem of projecting returns into the future. Other problems relating to this proposition involve measurement difficulties and problems of categorization and aggregation. Earnings data are based upon large sample surveys of the population. The soundness of the sampling techniques may be subject to question, particularly in developing countries, and the costs of obtaining such data are high. Sample surveys gather data on major categories of education (primary, secondary, and so on) and do not provide detail on differences in earnings between alternatives at the same level. (Another problem, discussed below, is that no information is available regarding recently implemented programs or totally new alternatives). Greater detail cannot ordinarily be provided because of limitations of statistical reliability thus the information produced relates only to broad categories of education. Such information is useful, to be sure, but its use is limited.

Proposition 5. Investment in education should be concentrated on those levels and types of education that have the highest rates of return: that is, enrolment should be increased in the high-return levels of education. This is the policy information that rate-of-return planning yields. Like manpower planning, the only variable with which it deals is enrolment. As noted above, educational planners and administrations need information on many other variables. Because of a lack of detail, planners cannot use the data to indicate which of various existing alternatives is most beneficial (for example, traditional academic education vs. science and technical education at the secondary level). Nor can the sorts of rate-of-return studies usually applied provide information on recently implemented changes or pilot programmes. Some countries have experimented with comprehensive education, for example, but since there have been few graduates and they have not been in the labour force long enough to reveal the age-income profile resulting from such education, rate-of-return analysis cannot, in its usual form, cast light upon the benefits derived from such experimental programmes.

Many modifications could be made in this planning approach to overcome some of its shortcomings.

In the past, rate-of-return analysis has been almost exclusively concerned with evaluating the yield of extra years of levels of education. But analysis of different amounts of education must be considered only a first step in a more comprehensive approach which would include the effects of various kinds of education. Unfortunately, little has been done in this area.

VIII. A Problem of Orientation of the Major Approaches

The preceding discussions of educational planning have been critical of the most frequent applications of various approaches to planning for educational development. The problems are of various sorts. The main approaches -- quantitative projections, manpower analysis and rate-of-return analysis -- often suffer from problems of measurement and data inadequacies. Or their usual applications have shortcomings because important factors are simply overlooked. These problems could perhaps be overcome with better data, more meaningful disaggregation, and more through attention to such matters as the role of on-job learning or ways to predict the slopes of the demand curves for categories of educated labour.

There are, however, other problems not so easily remedied. These involve fundamental weaknesses in the well-known conceptual frameworks for planning educational expenditures. Purely quantitative projection of sectoral growth provides no guidance on the ways in which education can contribute to national goals; only on how the system will grow if past trends continue. Adoption of arbitrary targets without analysis, as in the social demand approach, does not solve this problem. The manpower approach is based upon the questionable assumption that the relationships between education and occupation are clear and stable; that is, that substitution of skills takes place only within very narrow limits. The rate-of-return approach, while on a more sound theoretical footing than the others, addresses only the economic or income objective of education. And because it is based upon data from surveys of the existing labour force, it tends to use average data for marginal decisions. Much of the literature on educational planning has addressed the technical and conceptual problems of the approaches themselves, as has this discussion so far. The many problems inherent in manpower and rate-of-return planning have led knowledgeable observers to conclude: "Evidently both manpower and rate-of-return approaches have sever limitations".

The argument advanced against the major approaches in this study concerns a different set of problems. These involve the orientation of the approaches toward high-level reallocations of resources between major types of education. Even under the best of circumstances, assuming all technical and data problems could be overcome, planning tools that only indicate whether to increase or decrease enrolment in the various levels of education are of very limited interest to administrators concerned with efficiency and making education systems work better. Consideration of benefits and costs, as in the rate-of-return approach, is certainly not wrong (other, more useful applications of benefit-cost analysis will be considered below), and even broad assessment of manpower questions can be useful. But the information outputs from existing planning approaches do not match the information needs of decision makers as stated in the definition of planning. The information produced does not indicate how well the system is accomplishing its goals or how the cost-effectiveness of such accomplishment could be improved.

One writer has described the tasks of planning and expenditure analysis as asking, and answering, several questions. Where are resources going? What is being accomplished with these resources? How can the process of providing education be better accomplished? If these are the questions (and they relate closely to the definition of planning used here), how well do the major planning approaches answer them? In terms of indicating where resources are going even quantitative projection planning has failed to provide adequate information on educational costs and the distribution of costs within educational budgets. Manpower analysis largely ignores resource questions, often indicating "needs" that would impose impossible cost burdens if fully met. Rate-of-return analysis examines costs carefully, but only as an element in the rate-of-return calculation.

What about the question of what is being accomplished with available resources? The only criterion of accomplishment in manpower planning is the degree to which educational outputs match occupational demands. Rate-of-return analysis does at least examine the results of investments, but it does so only in terms of an income objective and only in relation to large aggregates (that is, earnings of graduates of some five to seven types of education). Its view of accomplishment, or the effectiveness of resource use is thus very narrow.

With regard to improving the effectiveness of educational investment of doing the job better only rate-of-return planning offers any guidance. Its prescription for improving sectoral effectiveness is to shift resources to those forms of education producing the highest economic returns. In other words the main policy parameter with which it deals is enrolment in different levels. This is theoretically sound but from the standpoint of the working administrator, such advice is sterile and narrow. The parameters of the system he administers include not only the magnitude of enrolment but also the supply and qualifications of teachers, alternative curricula, internal organization and emphasis on subject materials, inputs of facilities and teaching materials, the costs of all these things, and so on. Planning approaches that provide guidance on manipulation of only one of these parameters may be useful (at least if one can believe their results), but they leave a great many resource allocation questions unanswered. This is why the major planning approaches fail to meet the information needs of administrators, and why a change in their orientation is urged.

If educational planning, which is supposed to guide expenditure decisions, fails to provide guidance on important allocation questions, where did it go wrong? Why are the major planning approaches oriented toward such a limited set of high-level decisions? The answer lies in part in the origins of education sector planning. Planning in most developing countries began at the national level, often at the urging of external lending agencies such as the World Bank or IMF Macro-economic planning addressed problems of national growth, savings, investment, foreign exchange needs, price stability, and the balance between public and private sector activities in terms of large aggregates. When the broad dimensions of public investment were established, questions of allocation between various public sectors were addressed. The last questions to be asked involved intra-sectoral planning and project development. These were often the weakest elements in national planning.

Most education ministeries carried on unsophisticated forms of quantitative projection planning prior to the advent of national planning. This provided no strategy or rationale for sectoral development, however, and the competing approaches of manpower and rate-of-return analysis were developed to provide some broad perspective on how the sector should develop in the long run. These approaches dealt with the interfaces between sectoral planning and national planning. Internal problems of implementation and internal efficiency were left to technicians and specialists within the sectoral planning offices. Unfortunately the application of economic science to the education sector seemed to stick at this point. The attention of able economists was distracted by the controversy between manpower and rate-of-return planning two ways of looking at the same, high level questions. The rapture of linear programming models, which still dealt in large aggregates, further absorbed the talents of economists. A brief flurry of interest in educational production functions seemed to herald an interest in efficiency decisions within the sector and in the parameters with which educational administrators were seriously concerned. A number of problems specific to education notably, lack of understanding of the "production process" and in ability to specify inputs or outputs clearly led to disaffection with production function analysis, although a number of researchers continue this line of inquiry. In general, then, analysis of expenditure decisions in the education sector has approached the subject from the top down, avoided questions of the internal efficiency of the sector, and addressed a limited set of parameters.

The state of the art of public expenditure analysis has advanced rapidly in the developed countries, particularly in the areas of defense and water resources planning. Systems analysis and programme budgeting brought an economic perspective to expenditure choices in unlikely and widely differing substantive areas. Application of these tools in the education sector and in developing countries, however, has lagged. In part this is due to preoccupation with macro-oriented planning approaches. And in part it is due to scarcity of data on which to base lower-level economic analysis and to inherent difficulties of analyzing educational performance. But is entirely possible to apply economic analysis to the education sector in more fruitful ways than has been done in the past. The techniques are available (one of them is benefit-cost analysis, which underlies the rate-of-return approach). Data can be generated through different sorts of policy research that will provide a basis for analyses of significant policy questions. What is needed is a shift in orientation from the concentration on macro-allocation questions dealing only with the enrolment parameter, to the full range of expenditure analysis questions: Where are resources going? What is being accomplished? How can the various parts of the education sector be made to work somewhat better than at present?

Let us conclude this section by emphasizing the point that in spite of the many problems and shortcomings, planning has however emerged as a tool of policy in countries differing widely, not only in their stages of economic development but also in their economic and social systems.

Planning it must be re-emphasized is the rational application of human knowledge to the process of reaching decisions which are to serve as the basis of human action. The central core of the meaning in our analysis remains the establishment of relationships between means and ends with the object of achieving the latter by the most efficient use of the former. (see Diagrams 2 and 3).

III. Factors Determining the Growth of School Enrolment

Whatever approach is forwarded, a planner must constantly be aware and take into account some of the factors which influence the growth of enrolments.

> First, the expected growth of the population or more precisely of the school age population; and second,
>
> the anticipated expansion of the school system which may result from other developments or the mere growth of the population.

The first could be termed natural increase in population while the second results from migration, refugee influx enforcement of compulsory education, declaration of universal education, reduction in drop-out rates etc.

In estimating school enrolment we need to know e whether:

(1) there will be compulsory education

(2) prolongation of the length of the school system

(3) equality of education opportunities

(4) roles of various agencies engaged in education

(5) emphasis on rural or urban school development

(6) emphasis on the levels of education system

(7) emphasis on type of education formal or non formal, technical or professional

(8) increase/decrease in class size

(9) provision for qualified teachers

(10) Financing of education etc.

IV. Methods of Estimating Enrolment

A planner may also think about the methods for estimating enrolments. Two methods may be used viz:

1. The Grade-cohort Method based on the level of current school enrolment and estimated ratios of intake, retention, and output of the school system, and

2. Enrolment-ratio Method based on estimates of future school age population and future school attendance or enrolment rations.

The first is useful when complete and detailed school enrolment data by sex, age and grade for a sufficient number of years are available say eight or more years.

The second can be useful when enrolment figures are not available in such details, but there is school age population by sex and age.

Whatever approach, there are three logical stages which it could be advisable to follow:

(1) Analyse data to bring out basic characteristics and trends which must be taken into consideration when we proceed to make estimates of future enrolment. Find out how school system has been doing of the past years. Compute and analyse the necessary information.

(2) Make estimates of future school enrolment based on available data. Carry analysis from basic year to target year.

(3) Check estimates by bringing together observed data for past years and estimated data for future years; enrolment figures for different levels of education.

Steps in the procedure for estimating future school ernolment:

(i) The Grade-cohort Method

(1) Assemble all available data and analyse them for any characteristic trends.

(2) If enrolment data include new pupils and repeaters by grade, compute grade progressive ratio, repeater ratio and grade retention ratio by grades.

(3) When grade retention ratios have been worked out for a number of years, examine the trends revealed.

(4) When the grade retention ratio from first to last grade of school level are compounded i.e. multiplied together one after the other, approximate school retention ratios may be obtained.

(5) After computing average grade retention ratios, make assumptions as to the ratios which will probably be obtained for future years.

(6) From these assumed grade retention ratios, hypothetical school retention ratios may be computed to give the percentage of pupils from each grade cohort who will remain at school after one year or two years.

(7) Estimate the size of future cohort in the beginning grade by bearing growth of fast cohorts.

(8) By applying assumed school retention ratios to the estimated beginning cohorts for the future years estimates of total enrolment are obtained.

(9) Separate estimates for urban and rural areas from total enrolment may be made.

(10) Test all estimates for consistency and reasonableness.

(ii) The Enrolment ratio Method

This is based on past and current ratios of school enrolment to project future enrolment requiring estimates of population by age, sex or school enrolment data by age and sex.

The following steps will be needed:

(1) Assemble all available data and analyse them for any characteristic trends.

(2) Determine appropriate age group for each level of education and make first appropriate estimates of school age population according to these age-groups.

(3) To break five year population age group, interpolate to get to the single years.

(4) Where future population estimates are given only at intervals of several years, and estimates are needed for intervening years, further interpolation will be necessary.

(5) Assume school attendance or enrolment ratios for each sex and age group based on past observations, to be applied to estimated population for future years.

(6) Multiplication of estimated future population by age-groups by the assumed enrolment ratios for the corresponding age-groups will produce the number of children to be in school at a future dats.

(7) Distribute primary enrolment into urban and rural areas.

(8) At each level, distribute enrolment between general and technical education.

(9) At each level distribute public from private enrolment in schools.

(10) Test all enrolment estimates for consistency and reasonableness.

V. Problems and Issues in Education

Educational planners will have contend with, guard against and take into account many of the problems and issues listed below:

(1) The unsuitability of the curriculum to the socio-economic development of the country.

(2) Serious neglect of vocational/technical education.

(3) Emphasis on formal rather than non-formal education.

(4) In appropriate teaching methods.

(5) Terminal dead-end nature of education at first and second levels.

(6) Increase in the demand for education.

(7) The co-existence of extremes of poverty and affluence in the country.

(8) Educational reforms and policies.

(9) The galloping population growth and inability of education system to match the increased rate of population.

(10) Increasing trek of school leavers to cities and towns in search of white-collor employment.

(11) Rapid progress in knowledge.

(12) Insufficiency of available jobs to absorb school leavers.

(13) Inequality of opportunity, not only in society and on the employment market, but also at school.

(14) Bureaucratization, centralizm and rigidity of structures and methods.

(15) Politicizing of education.

(16) Shortage of skilled middle and high level managerial, professional technical and technological personnel.

(17) Changes in national strategies concerning financing of education.

(18) Increased importance of new technologies and scientific knowledge.

(19) Research, Experiementation and Development.

(20) Curriculum orientation and adjustments.

(21) School structures.

22. Coordinating levels of learning.

23. Adjustment of subject-matter.

24. The high turn-over of skilled and trained Africans socio-economic factors the brain drain.

25. Ineffective utilization of educational resources.

26. Instructional materials and equipment.

All these problems and many more have to be taken into consideration by the educational planner. In fact, the essence of planning is to map and propose some of the basic solutions to these problems. In spite of these many issues and problems, much of the concern in education today has been for social equity; for the development of science teaching' the development of internal and external efficiency[1] of the school to national needs; and for the building of research in education. Indeed the three major issues of concern and debate have been the relevance of education; maximizing the use of educational resources (human, financial and material), and the institutionalization of education development in national planning.

These issues have made it necessary for many countries to plan not only their social and economic activities but their education as well in order to:

(i) offset uncertainty and change;
(ii) focus attention on education and national development objectives, aims and goals;
(iii) gain or obtain economical operation of programmes and activities, and
(iv) facilitate control of programmes and activities.

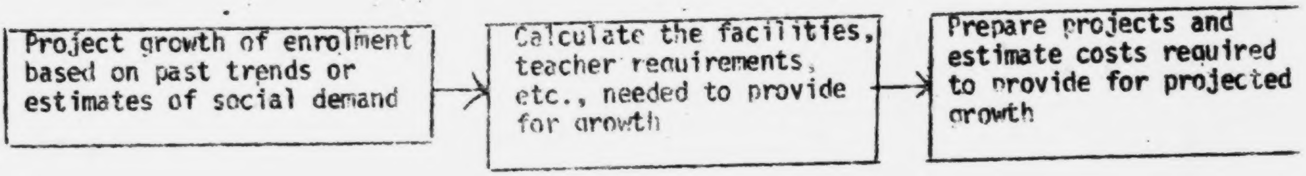
Given these reasons for planning, one can view educational planning from political nature of planning cum-administrative function in which case, the tole of the planner should be seen as that of increasing the degree of rationality in the political decision-making through exploring the possibilities of using such decisions on emperical evidence. In this regard, planning should not be seen as a process leading to change in education programmes, but also as an agent for change in the administration of the programmes and associated decision making.

1/ External efficiency refers to the effect of education on economic and social development and its responsiveness to national and social needs.

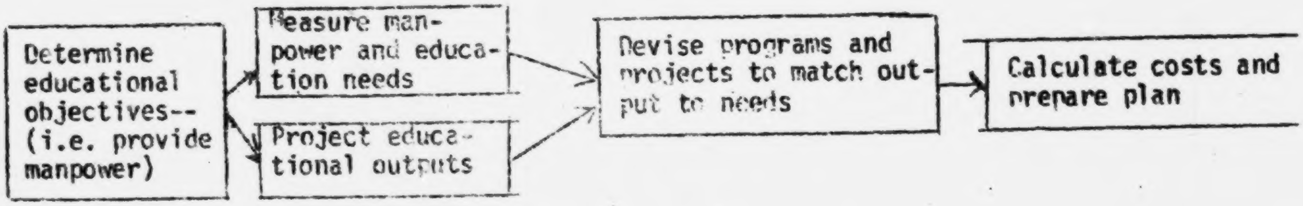
Block Diagrams of Planning Approaches

Diagram 1

Quantitative Projection Approach to Planning


Project growth of enrolment based on past trends or estimates of social demand
Calculate the facilities, teacher requirements, etc., needed to provide for growth
Prepare projects and estimate costs required to provide for projected growth

The Manpower Approach


Determine educational objectives-- (i.e. provide manpower)
Measure manpower and education needs
Project educational outputs
Devise programs and projects to match output to needs
Calculate costs and prepare plan

The Rate-of-Return Approach

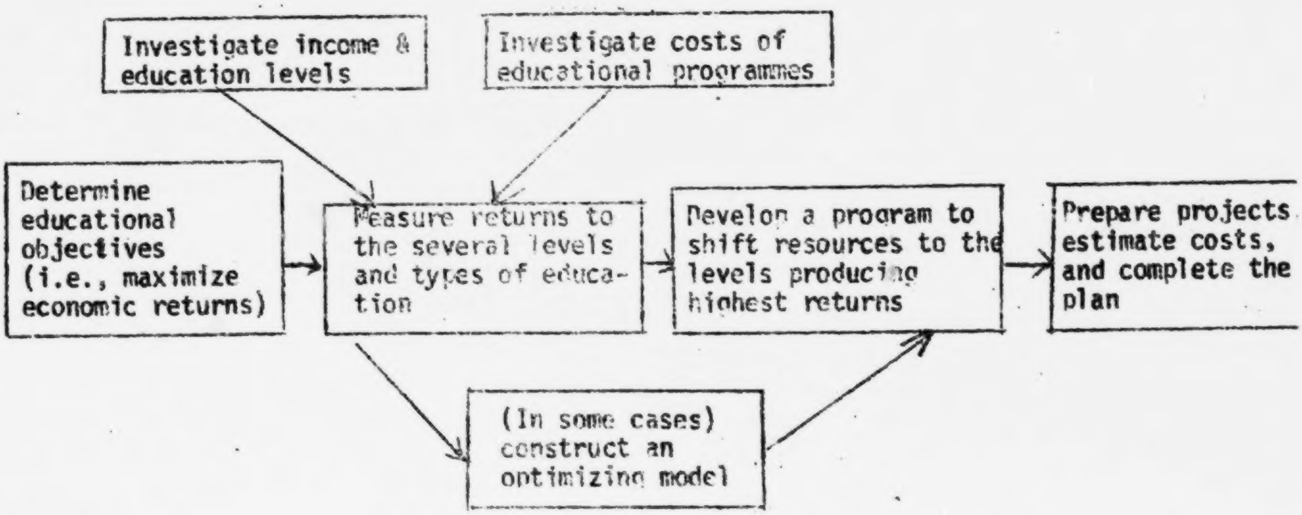

Investigate income & education levels
Investigate costs of educational programmes
Determine educational objectives (i.e., maximize economic returns)
Measure returns to the several levels and types of education
Develop a program to shift resources to the levels producing highest returns
Prepare projects estimate costs, and complete the plan
(In some cases) construct an optimizing model

Diagram 2

Planning in a Continuous Process of Managing Education Systems

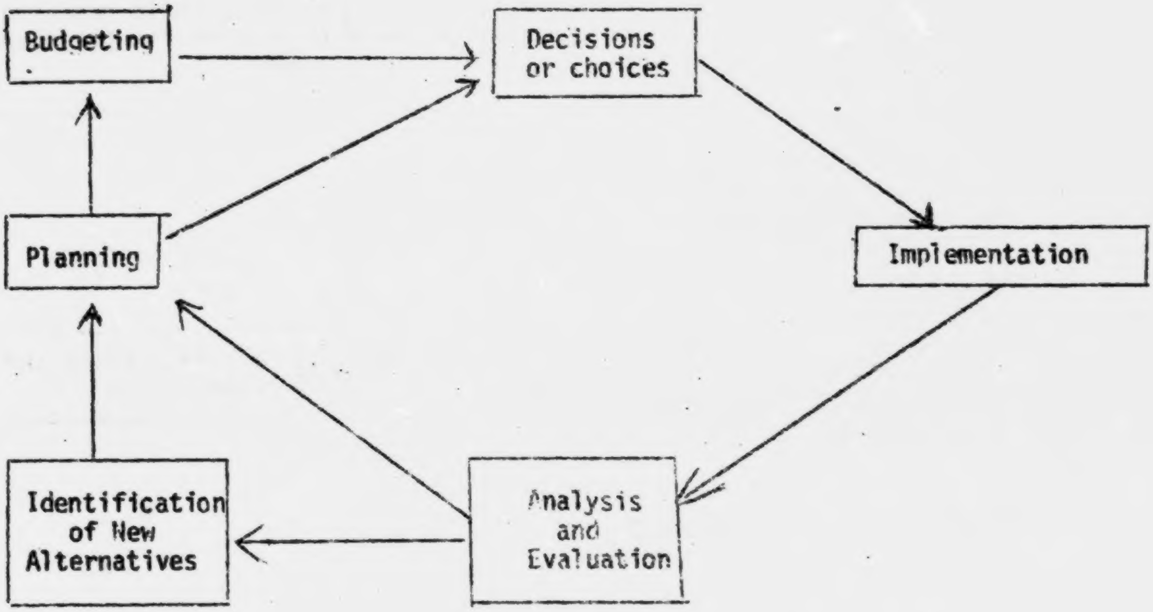
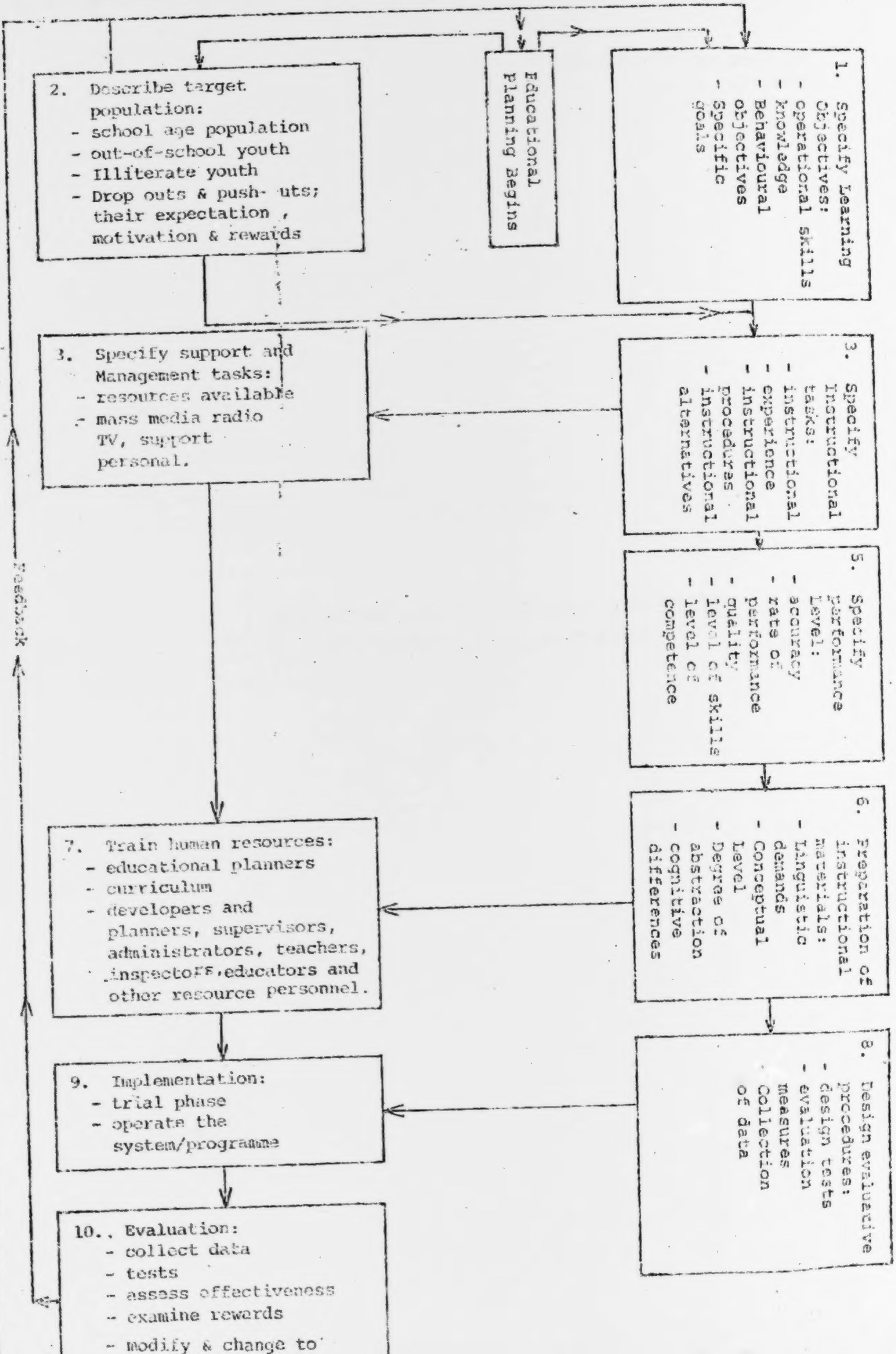

Budgeting
Decisions or choices
Planning
Implementation
Identification of New Alternatives
Analysis and Evaluation

Diagram 3

Steps and Basic Factors for Consideration in Educational Planning A Systems Model.


Educational Planning Begins
1. Specify Learning Objectives:
- operational skills
- knowledge
- Behavioural objectives
- Specific goals
2. Describe target population:
- school age population
- out-of-school youth
- Illiterate youth
- Drop outs & push- uts; their expectation , motivation & rewards
3. Specify Instructional tasks:
- instructional experience
- instructional procedures
- instructional alternatives
3. Specify support and Management tasks:
- resources available
- mass media radio TV, support personal.
5. Specify performance level:
- accuracy
- rate of performance
- quality
- level of skills
- level of competence
6. Preparation of instructional materials:
- Linguistic demands
- Conceptual level
- Degree of abstraction
- cognitive differences
7. Train human resources:
- educational planners
- curriculum
- developers and planners, supervisors, administrators, teachers, inspectors, educators and other resource personnel.
8. Design evaluative procedures:
- design tests
- evaluation measures
- Collection of data
9. Implementation:
- trial phase
- operate the system/programme
10. Evaluation:
- collect data
- tests
- assess effectiveness
- examine rewards
- modify & change to
Feedback

CHAPTER 2

Educational Planning: Concept, Objective and Preparation of an Education Plan

EDUCATIONAL PLANNING

Concept, Objectives and Preparation of an Educational Plan

Introduction

The main purpose of this section is to show that in order tp produce a meaningful Education Plan, it is essential that the education planner should be provided with national policy guidelines and that he should also be aware of the:

1. development objectives of the country; and

2. national objectives for education.

Thus it is proposed to deal with the following issues:

concept of educational planning;

clarification of educational objectives;

definition of aims and objectives of education;

authorities who define the goals of education;

diagnosis of present conditions and recent trends;

assessment of alternative strategies for planning;

translation of plans into action.

Concept of Educational Planning

It is often thought and believed that educational planning is a rigid formula to solve all the problems of education and also that it guarantees the provision of education for all and a secure future for the individual, his family, the community and the nation as a whole.

Educational planning is not a miracle drug to cure all the ills of an ailing educational system.

It is not a standardised formula to be imposed on all situations regardless of their vast differences.

It is not a conspiracy to destroy the freedoms and prerogatives of teachers, administrators and students.

It is not a device for enabling a small group of technocrats to usurp the power of choice and decision over educational aims, policies and priorities of society.

It is not an exercise in planning for its own sake -- which neglects the fundamental characteristics of education and the all important fact -- that man is the ultimate end of education.

Educational Planning is the application to education itself of what real educators seek to instil in students, namely, a rational, scientific approach to problems.

Such an approach involves identifying objectives and available resources, examining the implications of alternative courses of action and choosing wisely among them, deciding on specific targets to be met within a specified time frame, and finally developing the best means of systematically implementing the choices which have been made.

Thus educational planning is much more than the drafting of a blue-print; it is a continuous process. The process of educational planning entails a succession of independent actions.

A plan is a rational method of attaining a goal. There can be no plan unless aims are clearly defined beforehand.

Education affects the whole future of society and opinions often differ widely on the relative importance of each ultimate aim involved -- whether economic, social, political, cultural or ethical -- and the proper course to be taken in order to achieve them.

The absence of aims or their vagueness and incoherence, may have serious consequences -- for there is the danger that the plan will be limited to purely quantitative objectives (e.g. increase in the enrolment rate) and thus instead of influencing the future, will perpetuate the existing situation which may not necessarily be a satisfactory one.

On the other hand, if the technicians become accustomed, for any lack of clear instructions, to fixing objectives on their own, the plan may become the tool of a technocratic tyranny which is the antithesis of education.

To fix goals is the first step in planning and before doing that no further progress can be made.

The notion of aim is not simple. On the one hand, there are the internal aims of the development of education proper, and on the other, the external goal of the educational undertaking which is reflected in the integration of educational planning in over-all economic and social planning.

There are objectives that can be expressed in terms of quantity (e.g. school attendance rate at different levels, minimum output, maximum costs) and others that cannot easily be so expressed (e.g. promotion of attitudes conducive to development, freedom, creativity and fulfilment of the individual, international understanding).

Some of these objectives are short term, others are permanent or very long-term ones. These different aims and objectives should not, however, be entirely dissociated: they are interdependent and so must be at once distinguished from one another and co-ordinated.

If the detailing of the plan's objectives is largely a matter for technicians, the general orientation given to education concerns the entire national community and indeed mankind at large; responsibility lies, then, at widely differing levels and these, often enough, intersect.

In this respect we shall examine in succession, in order to elucidate the problems of determining aims and establishing at least the basis of a common language; the scope of the definition of aims and objectives; the levels of authority involved; and the levels at which forecasts are made, their bearing and the integration of short, medium, long and very long term aims.

Clarification of Objectives for Education

Without a clear idea of its objectives an educational system is as a ship at sea with no destination; it cannot plan its course and can end up simply turning in circles.

A nation's educational objectives, reflecting society's idea of its own future, must be decided by the society as a whole and its chosen leaders.

This idea of the future should embrace basic human values, ethical, cultural and aesthetic, and also the various roles the individual will be required to play in society, as a citizen, worker and member of a family.

In translating these over-all goals into educational objectives those responsible for educational planning can help.

They can help by insisting also that there be reasonable consistency and an order of priority among various objectives, since not all of them can be pursued at full speed simultaneously. They must make sure that the definition of objectives and their priority rating is understood as a continuing process that should be periodically reviewed.

Definition of Aims and Objectives of Education

Normally, educational planning begins with a formulation of and study of the goals of education within a country. The goals of education are also influenced by the so called development objectives.

An education planner needs to know the following:

1. The development objectives of the country.

2. The national goals of education.

3. Policy statements of various kinds and whatever guidelines which are normally provided by the national policy makers.

The national aims of education provide orientation to the main emphasis that should be put into education.

Also the national aims of education establish the philosophy that will guide the teaching within a school system.

National aims of education usually express the kind of values generally expected by society out of the products of the school system.

Since education concerns all spheres of human activity, its aims are scattered through a wide variety of fields, every one of which must be taken into account. Many of the fundamental concerns of education have persisted through centuries, but in the course of time, different aspects have been stressed in turn.

Educational aims have long been of an essentially ethical, social, patriotic and ideological nature. Even today we find, on reading official declarations or those passages of national constitutions that relate to education, that these traditional aims are still emphasized.

From time to time, we come upon references to statements such as:

character moulding of children;

development of a sense of duty;

Integration of the child in the community;

revival of African cultural values;

love of one's country (patriotism);

training in ethical and Christian values;

appreciation of Christian values;

preservation and strengthening of the democratic system of Government.

Very often also we find emphasis is laid, in practice if not in theory, on intellectual training and scholarship. Knowledge sometimes tends to appear to be an end in itself.

More recently, a reaction has set in against purely theoretical education. The idea nowadays is to link education to the general development so that training may be a preparation for employment, for life in its broadly economic aspects, for cooperation in the common endeavour, and for participation in the practices of democracy. Educational planning generally bring into focus this will to adapt education to economic and social development.

We note that the function assigned to education in relation to social values is tending to alter; long considered to be the means of passing on the cultural heritage and existing system of values, of maintainig the structure of a given society, education, these days, is looked upon increasingly as a means of changing, renewing and even of challenging established values.

At the same time the notion that education can and should be an instrument for international understanding and peace is gaining ground constantly.

The formulation of aims for a modern educational system does not mean simply substituting more recently defined aims for established ones, or adding them to existing aims with no fixed priorities.

In order not to forget traditional aims while introducing new ones, it is necessary to distinguish between different groups of objectives (e.g. cultural objectives such as transmission of knowledge, ethical objectives like promoting moral and spiritual values, social and economic objectives such as formation of essential skills and political objectives or national building.

Traditional aims may call for restatement to fit the present context.

Standardized ethical teaching may yield ground to more down to earth pedagogical methods designed to promote emotional stability, interpersonal relationships, adjustment to new family and social structures and a proper sense of man's place in the universe.

The accumulation of knowledge may be replaced by training of the reasoning and critical faculties and the development of the imagination and of taste.

Certain former aims, which may even be written into a national constitution may seem to be out-dated and no longer to correspond to present realities or needs; when this is so, it would be advisable to alter the text of the constitution in such a way as to ensure the necessary coherence between the laws and educational action.

In some circumstances, different aims may appear to conflict and some decision about priorities would have to be taken; but it is essential to see how the different aims are inter-connected and mutually dependent. An attempt must be made to integrate them.

There is, interesting enough, a trend at present to reconcile the practical with the moral goals; the so called economic with the so called educational aims, considered as complementary approaches to human development. That is, development of the individual and the citizen alike, of character and intelligence, of theoretical and practical knowledge.

The arguments about the pros and cons of general education as opposed to vocational training seem more and more to be merely a matter of words.

To say nothing of the basic attainments (the three R's: reading, writing and arithmetic) required in every present day occupation, it is surely obvious that it is as, and indeed more, important for holding any position to have had a general education to have learnt to be methodical and occurate, to be accustomed to adopting a rational and critical attitude to things and an imaginative approach to technology and economics, to have acquired a feeling of team work than merely to have the knowledge and skills necessary for that particular position.

It is not equally obvious that the retraining courses and reconversions necessitated by the gathering speed of technological progress must be based on a sound general education. And lastly, who would gainsay that any general education which includes no practical work is not truly general, and that agriculture or the handicrafts can be excellent educational tools?

In the light of the above, a National Education Development Plan may address itself to the following development and Educational objectives:

Development Objectives: These may include:

1. Political equality, religious freedom, promotion of cultural heritage, social justice, freedom from want, ignorance and disease, human dignity including freedom of conscience, equal opportunity for all citizens and high and growing per capita income equitably distributed.

2. The alleviation of poverty throughout the nation.

Educational Objectives: A government may consider the following to be the most important objectives of its educational system:

1. Education must serve to foster national unity.

2. Education must serve the needs of national development.

3. Education must prepare and equip the youth of this country with the knowledge, skills and expertise necessary to enable them collectively, to play an effective role in the life of the nation whilst ensuring that opportunities are provided for the full development of individual talents and personality.

4. Education must promote social justice and morality by instilling the right attitudes necessary for the training in social obligations and responsibilities.

5. Education must foster, develop and communicate the rich and varied cultures of the country.

6. Each country is a member of the international community and hence its education system must foster positive attitudes and consciousness towards other nations.

These broad statements of development and educational goals would lead the Educational Planner to an articulation of more specific objectives for the various sectors of the educational system. The Education Development Plan is then based on these specific objectives which derive their origin from the development and educational objectives.

Authorities Who Define the Objectives for Education

The constitutions of most countries set out national educational aims, and proclaim a certain number of principles (free and compulsory schooling, etc.); they stipulate which executive or legislative authorities are qualified to propose, approve and promulgate the laws, decrees and regulations governing the educational structure and budget, curricula, and the status of teachers.

The General Development Plan, where there is one, establishes the place of education in that plan and the aims which it is to pursue in order to contribute to economic development.

In practice things are not so simple. To begin with, there is too often a real gulf between the objectives proclaimed and those actually pursued. In any case, such ostensible aims are always extremely general; they have to be interpreted in order to translate them into terms sufficiently specific for planning, and decisions and results may vary considerably according to that interpretation.

Priorities must be fixed both amongst the different aims of education proper and in relation to the other sectors. True, the national constitution stipulate who, in the last resort, shall take the official decisons; but in reality the specialists in the educational planning bureau have always exerted a considerable influence - all the more so as problems become more technical and beyond the grasp of non-specialists.

In the absence of any general development plan or specific educational policy, specialists may be tempted to take over from society, settle the plan's objectives themselves, and persuade the public authorities to ratify their proposals.

This would be a very serious state of affairs and is liable to bring planning into disrepute. An individual or group of individuals - however competent and well-intentioned - cannot know and understand everything about a particular society; their arguments can never be a substitute for the conscience and will of the people as a whole. Even if their objectives were the best in the world - which is highly doubtful - the plan prepared on the basis of those objectives would still be difficult to carry out; the public authorities might not authorize the outlay needed to execute a plan which had been so to say, foisted on them; moreover, having had nothing to do with its drafting, the teaching profession and society would never take an active part in such a plan.

The participation of all the responsible authorities and of society as a whole in determining the goals and aims of the educational plan must not be taken for granted; in this respect consultation is a major operation and must be carefully organized. The following are some of the means of consultation and appropriate bodies that may be established: information seminars for regional and national educational administrative staff; liaison committees between the ministry of education, the other ministries involved (in particular the ministry of planning), the university and the various organizations concerned (private schools, trade unions, parents' administrators, parents, students and representatives of the different economic and cultural sectors; surveys amongst the teaching profession, organization of information meetings and debates; information campaigns through the press and radio to draw the general public's attention to educational problems; furthermore, these media can be used to disclose and comment on the outcome of the consultations and to maintain contact between national and regional committees.

The organization of these nation-wide consultations calls for: time (at least six months; a time-table must be drawn up); staff (to follow the meetings of the committees, direct seminars, tour the regions, draft questionnaires, exploit results obtained); a budget (staff expenses, printing and mailing costs, travelling expenses and possibly recruitment of an expert); the active interest of the authorities - only the minister of education and the head of the government can direct such a campaign effectively.

This mobilization of efforts for the purpose of defining the goals and objectives of education in itself represents considerable progress. By making it its duty to reflect on education, society educates itself and becomes alive not only to the economic problems, but also to the social, cultural and human problems involved in its general development. Here we find a first manifestation of the truth, too often forgotten, that education must begin with itself, educating first and foremost the educators, amdinistrators and all others responsible people including the voters.

The time and energy expended on such reflection are recovered with interest. Once the aims of the plan have been properly defined, half the preparatory work is done; priorities emerge later, as if of their own accord; and the internal yield' of education merges with the so called 'external productivity' when the aims of the educational system coincide perfectly with those of society. The counsultantive bodies set up to determine the aims will be of service later when it comes to revising the hypothesis on which the plan is based, preparing curricula, discussing the school distribution map, etc.: it will be far easier to put the plan into practise if those responsible for its execution and all other persons concerned understand it and adhere to it fully; no administrative coordination measures can make up for the lack of a common viewpoint and will to succeed. It is impossible to evaluate educational 'productivity' if aims are not defined beforehand.

Role of the Educational Planner

The role of the educational planner is not unimportant. His principal tasks are:

To draw the attention of the competent authorities to the dangers of embarking upon any planning of the aims of which have not been clearly defined.

To mark crucial points but to refrain from personally fixing aims and objectives that lie outside the responsibility of the technician pure and simple.

To explain to the competent authorities the possible implications and consequences of the different objectives and options in the financial, social, economic, cultural and educational field.

To organize, carry out and exploit the results of the nation-wide consultations on the aims of the education plan.

Concensus in the Aims of the Education Plan

A perfect concensus of the whole of society on the objectives of an educational plan remains an ideal goal; but it is the ideal goal sought by education itself. It cannot therefore, be too quickly abandoned. Even if finally, it were necessary to compromise in order to strike some sort of balance between different types of interest or different points of view, the fact that a compromise has been felt necessary and has been accepted could perhaps be interpreted as a sign of progress in the public consciousness of educational problems.

Diagnosis of Present Situation and Trends

Preparing a plan calls for a number of supplementary studies; a historical analysis of education over the last few years (in particular, the success and failure of previous reforms); an educational chart showing where the institutions are placed and how the teachers are allocated; an evaluation of programmes and methods; an analysis of unit costs; surveys among the teachers, etc.

Diagnosis presupposes research with a view to action. It is consequently important, in preparing it: always to regard education as a whole, a genuine system which itself forms part of the entire social system (that being so, it may be useful to employ such methods as operational research which emphasize the interaction existing inside education as well as between education and the rest of society); not to cling exclusively to pure description, but to elicit what functions well or less well, to determine where there is imbalance, to evaluate unceasingly on the basis of the paractical needs of a concrete society; not merely to evaluate, but to try to identify the causes (educational, administrative, economic, social, psychological, physical), difficulties, cases of imbalance, failures and instances of resistance and to imagine beforehand possible remedies and solutions.

It is not enough to diagnose the present situation and current trends. Diagnosis must be followed by a prognosis as to what the future situation would be if no deliberate action were taken to change or speed up trends and the tempo of evaluation regarded as natural. Prognosis is seen to have two stages:

1. Projection which is merely an extrapolation of the past into the future in accordance with the average rates of evolution of the various elements of the educational system.

2. Forecasting which corrects projection on the basis of an analysis of existing factors of change, the effects of which can develop further in the future (e.g. the consequences of a current reform, appearance of new sources of financing, or the drying up of an existing source, a rise in the birth-rate etc.).

Only then can a start be made on real planning which, on the basis of the diagnosis, prognosis, and keeping the objectives well in mind, will attempt with assistance from various economic, sociological and educational techniques, to determine the strategies of education. It is nevertheless quite obvious that the distinctions are in reality less clear-cut, that it is often by means of diagnosis that the objectives become apparent and that clearly defined objectives provide a first outline of possible solutions.

Assessment of Alternatives

The future courses of an educational system are limited by a variety of constraints. There is little point in building a 'dream model' or of setting 'bold' targets that are patently impossible to realize.

The object of planning is to get as far as possible within the area of manoeuvre defined by the constraints, and where possible, to overcome certain of them. What is to be emphasized is that the constraints are not merely psychological. The planner who neglects to take the main constraints into account is inviting disappointments and frustrations.

This said, what is important next is to identify the major alternative courses of action that are available within the boundaries of likely constraints, so that their respective pros and cons and implications can be intelligently weighed by decision-makers before making a choice.

There are usually a good many feasible options; the task of the planner is to identify the chief ones. Again it is worth emphasizing that planning is not simply a matter of projecting the past into the future along a straight line; its object is to change the future to do things better than they have been done before.

Thus the central question is not: how quickly can we expand what we are now doing? Rather it is: what are our alternatives, and which of these will take us farthest ahead most quickly, given our inescapable limitations?

Translation of Plans into Actions

A plan is a basis for action but it does not in itself produce action. A 'national educational plan' is no more than a rough thumb-nail sketch until it is broken down into well-conceived specific programmes, fitting specific activities and geographic areas, and until the programmes are in turn translated into specific well-designed projects consistent with the general plan. Then the over-all plan can be implemented, if it was realistic to begin with, if the administrative capabilities are there, and if no unforeseen difficulties arise.

Both the building of a general plan in the first place is a complex affair. Ideally perhaps, an over-all plan should be built from the bottom up, within a general framework of prescribed resource limitations, objectives and priorities. Evan when this is not fully feasible, central planners must none the less keep the local scene and capabilities, and above all local differentces, very much in mind, if their over-all plan is to be implementable.

CHAPTER 3

Educational Planning: Policy Issues

(a) Educational Policies and their Implications for the Educational Planner

(b) Objections and Preparation of an Educational Plan and their Implications for Curriculum Development

EDUCATIONAL PLANNING: Policy Issues

A. Educational Policies and their Implication for the Educational Planner

Introduction

An educational planner normally begins with an appraisal of the current situation and its evolution and a corresponding analysis and appraisal of the qualitative aspects of the educational services, both viewed in the light of existing objectives and plan. This analysis and appraisal form the basis for consideration of proposals for the future.

It is likely that some policies would already be decided or committed in, for instance, election manifestoes, public statements or party policy. Such policies would have to be examined in the light of the appraised situation, and as a result it might be necessary to point out to the policy-makers that achievement of those policies is difficult and perhaps impossible in view of the existing situation, with suggestions that they be modified or even abondoned. This can be a very delicate matter.

Subject to such commitments, proposals for future policy should be formulated in the following broad spheres.

1. A strategy for the future linked closely with proposed national development, social, economic, cultural and political.
2. Within that strategy objectives which education should be aiming at.
3. The content of educational courses needed to achieve those objectives.
4. The methods by which the students will learn and be helped to learn those contents.
5. The structure of the educational system through which the students will pass in the process of learning the contents of the various courses by the methods proposed.
6. The numbers of students proposed for each course, preferably expressed in the long, medium and short term.

The above list is placed in a logical order of consideration, and in general, it should be followed. However, it is not possible to treat each item in isolation. Interacting effects are inevitable and the process of formulating proposals is a complex one.

The whole process must be carried out against the background of the analysed and appraised situation. If proposals are to be realistic it is impossible to ignore what exists.

Teachers will have been trained and equipment and premises provided with the existing content and methods in mind. These cannot just be set aside. There are either contractual or moral obligations to existing staff, and in any case it is probably impossible to replace them en mass.

There may be limits to the ability of some of them to absorb new ideas and training. Existing premises and equipment represents a considerable investment. Inevitably one must think in terms of progressive changes.

During the discussions the educational planner should always be thinking of the possible effects of suggested proposals, especially quantitative implications of qualitiative proposals. Ultimately he will have to come to a conclusion about the possible effects of both qualitative and quantitative proposals on the analysed rates and factors so that he can, if necessary, amend them for use for projections for the future. If he is alert and quick enough to make rough calculations during discussions on the formulation of policy, he may help his colleagues avoid making unrealistic proposals and in the process save himself much trouble in referring back to them later.

The kinds of changes in policy which may be proposed are innumerable, and it is not intended to try to cover the whole ground in this presentation. The examples discussed below are chosen as some of the most likely and important. The purpose of the discussion is to give an indication of how the educational planner should view such proposals, bearing in mind that he would have to consider changing his analysed quantitative factors for the purpose of making projections.

Changes in Curriculum, Syllabuses and other School Activities

1. The size of a group which a teacher can deal with effectively varies according to the subject. Generally, the more individual supervision needed the smaller the group, with the result that practical subjects usually necessitate smaller groups.

   A change in emphasis among subjects or the introduction of new subjects and/or the abolition of others may have effects on staffing formulae, with chain effects on student/teacher ratios, recurring costs per student and, if housing is provided for teachers, capital costs.

2. Such changes also alter the proportionate needs for specialist teachers of each subject, which in turn would change the needs for the numbers of trainees for each subject in teacher training and/or university courses.

   The time-lag involved in producing the teachers may necessitate delaying the changes to the school courses or making temporary arrangements pending the production of suitable teachers.

3. Changes in the nature and/or quantity of premises and equipment arising from changes in curricula, syllabuses and other school activities would result in changes in unit costs, both recurring and capital.

Changes in Teaching Methodology

1. This may have an effect on the sizes of teaching groups and staff requirements, e.g., there may be a need for the use of auxilliaries, and a possible change in the student/teacher ratios. There would also be a change in requirements of equipment and, of course, costs.

2. The whole of the technical aspect must be considered - staff, buildings, equipment, running costs, etc. - a large subject to which the full answer, especially in cost terms, may not be available.

Changes in the Requirements of Training and Qualifications of Teachers

1. A change of this nature is usually an upgrading of total education and training required of a teacher in a particular sector of the service. Such a change can have an important effect on salary rates and costs.

   If the level of entry to training is raised, the length of the training course may be shortened, both because less background content is needed and because the better educated trainees can more easily assimilate the training given.

2. A change in the length of training means a change in the output from the same total enrolment or vice versa, e.g., a total enrolment of 6,000 for a four-year course gives an output of about 1,5000 per annum, whereas for a two-year course the output would be about 3,000 per annum. Again, the shorter the course, the more flexibility there is in changing the nature of the outputs.

3. A change in the level of intake may mean a need for higher qualified staff in the teacher training colleges and a consequent problem with regard to the disposition of the existing lower qualified staff and the possibility of additional training for them. It might also have an effect on the types of buildings and equipment, and would possibly result in a rise in the standard of living of the students. All of these factors may affect unit costs, both recurring and capital.

Changes in Class Sizes and/or Student/Teacher Ratios

1. There would be a resultant change in the numbers of classes and/or teachers required for the same given enrolments.

2. There might be a need to change the sizes of rooms, and possibly adapt existing buildings.

3. Thus, there would be consequent changes in both capital and recurring unit cost rates.

Changes in the Structure of the School System

1. If a new type of course were introduced, some of the important factors which would have to be considered are:

(a) the educational level for entry to the course;

(b) the qualification and rates of salary of the teachers and the staffing formulae;

(c) the length of the course;

(d) the desirable and practicable size of a school, and possibly its amalgamation with other courses in an integrated school;

(e) the nature, scales and cost rates of buildings, premises and equipment;

(f) the need to supply transport or boarding facilities;

(g) non-teaching staff and their salary rates;

(h) needs for the day-to-day running and administration of the school;

(i) arising from all considerations, total recurring and capital costs.

2. If a course were abolished or reduced in volume, consideration would have to be given to the future of the premises, equipment and staff thereby released. If a course is abolished, plans must be made to run it down, since there would be an obligation to students already in the 'pipeline'.

3. If the number of grades of a course is changed or if two successive courses are amalgamated:

(a) to achieve a given output, there would be a change in the total number of places in the course and in the total requirements or teachers, premises and equipment;

(b) an increase in the number of grades means a year without an output, and a decrease means a year with a double output. This is important especially when the course feeds courses at a higher level. It might be necessary to consider staggering the re-organization to ensure a less abrupt change in outputs.

Changes in the Grade at which Specialization Begins

This may mean considerable changes in the following:

1. The qualifications and subjects of teaching staff, with positive consequent changes in salaries.

2. The kinds of teaching rooms.

3. The kinds of quantity of teaching equipment.

Changes in Policies of Promotion of Students Within a Sector of the Educational Services

A change from tested promotion to automatic promotion will obviously have an effect on repeating and may well have an effect on drop out, necessitating a change in repeating and promotion rates to be used for projections.

Changes in the School Calendar and/or Time Table Organization and/or Utilization of Premises

1. Changes to or from multi-shift or multi-session classes and/or staggering of school calendars and/or time tables have effects on staffing formulae and scales of buildings and equipment, and consequently on capital and recurring unit costs.

2. Changes in scales of accommodation for the purpose of changing the degree of utilization of premises have effects on unit costs and to a lesser extent on recurring costs.

Changes Arising from Population Distribution and Migration

The educational planner must be alive to the practical implications of proposed policy in relation to the distribution of the populations which the schools serve. The policy on the choice of day, day/transport or boarding education must be viewed in the light of the practicability of students being able to attend shcool regularly from their own or other people's homes, travelling on foot or by some form of transport. In many cases boarding facilities provide the only practical answer. This awareness must be forward-looking. A shift of pupulation from rural to urban areas may denude a rural school of its students. Decisions on policy of this nature have important effects on recurring and capital costs.

The examples quoted above make it quite clear that projecting quantitative factors is not necessarily a simple matter of using or extrapolating analysed rates, etc. from the past. The educational planner must be constantly on the alert for factors which may alter the rates which he uses to make his projections.

B. OBJECTIVES AND PREPARATION OF AN EDUCATIONAL PLAN AND THEIR IMPLICATIONS FOR CURRICULUM DEVELOPMENT

The first function for which curriculum policy must make provision is that of planning. Curriculum planning is in turn an essential part of educational planning which sets out, explicitly or otherwise, the general objectives of an educational system and the means through which these objectives are achieved. It is useful therefore to consider the place which has been given to curriculum planning in general educational planning and how much guidance this planning work entails for curriculum development.

Much of the current educational planning work in Malawi is dominated by the manpower requirements approach complemented by the social, cultural and historical considerations. The usefulness of this approach for curriculum planning is limited by the uncertainties concerning the relationship between particular occupations and the education they require. This limitation becomes even more serious when it comes to deriving educational requirements from manpower requirements forecasts.

For instance changes in technological processes may require a change in the educational input for particular occupations while changes in content and methods of education affect the educational input for the relevant occupations.

Thus it is necessary to:

(a) study the functioning of the educational process as a prerequisits for the co-ordination of the curriculum planning with manpower planning.

(b) examine factors such as the appeal which the several curricula have upon students, e.g. preference for arts or science, necessitate a revision of manpower forecasts and the constraints in this sector may again lead to a revision of the curriculum.

(c) make use of more refined manpower forecasting techniques than are actually in use to-day - in particular the availability of long, medium or short-term forecasts.

(d) make a regular evaluation of the relevance of curricula to the educational "input" into the labour market.

In the light of the basic uncertainties inherent in the manpower forecasting requirements, a worthwhile conclusion is to appeal to the educational policy-makers to adapt teaching in its structure, methods and content to the new situation of a labour market whose requirements become more and more fluctuating. The answer to the problem is thus to be sought not in better manpower forecasting alone, but to a large extent in the curricula themselves.

In developed countries, the "social demand approach" tends to be given preference over the manpower approach in determining structure, content and methods of teaching. However the two approaches need not necessarily be contradictory even where extension of general and compulsory education may cause unnecessary debate.

Curriculum must therefore be seen in a new and dual role i.e. both as use of the instruments through which the objectives of education are attained on a unified basis, and as a factor to be taken in determining these objectives and in adjusting them in the curriculum process. Curriculum planning can fulfil this function if it is fully integrated into the overall educational planning mechanisms. This is the challenge which confronts educational planning in Malawi.

In essence therefore, we need to consider such issues:

1. Decision making function - what subjects shall be taught and who decides on these? Who will write the textbooks and produce the aids for teaching?

2. Role of the community

   Education in Malawi is considered so important that every individual parent is concerned about the education of his child. Therefore national and individual interests ought to meet somewhere if we are to produce reasonable curricula. Real consultation ought to take place.

3. The academic community

   This has a vital role since the promotion and custody of knowledge and the training of teachers lies with them. Thus curriculum planning and development in which the academic community does not play a leading role is severed of its sources and its supplies.

4. The function of subject matter in curriculum reform

   Subject matter is the hard core of the educational process. Its relevance in general educational goals determines the efficacy of the whole effort.

   Subject matter revision is not just an exercise in rejuvenation cure, but it must adjust the content of teaching to the latest developments in the state of knowledge; and adapt its choice and its presentation to the particular exigencies of the type and level of schooling where it is done.

   To do this needs the joint hands of educationists, teachers, university academics, curriculum planners, developers and evaluators, researchers and others.

   Subject matters revision comprises these stages:

   - the scrutiny of present state of the subject and the determination of the latest of those of its developments which are relevant for teaching;

   - the translation of those topics into pedagogical terms, what can be taught, and how it can be taught at the various levels of system;

   - the preparation of guides for teachers; and

   - the production of textbooks and other instructional materials.

CHAPTER 4

Educational Planning: Its application in Malawi[1]

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[1] Contribution by Dr. Joseph Kuthemba-Mwale, Chancellor College, University of Malawi.

WHY EDUCATIONAL PLANNING WITH SPECIAL REFERENCE TO MALAWI

Introduction

The establishment of an educational system in Malawi was haphazard and not based on any systematically conceived educational plan. However it was modelled after the British system of formal education whose characteristic feature it still retains today. Probably the first Educational Plan drawn for Malawi was the 1973-1980 Education Plan. The current (1985-1995) Educational Plan is the second in the series.

Written with an education biased audience in mind, this chapter attempts to discuss the nature of educational planning, the components of educational planning, the process of educational planning in general, and the problems of educational planning as applied in Malawi. Probably the best starting point is the definition of planning in general and educational planning in particular and then proceed with the rest of the discussion.

Planning has been defined in many ways according to the orientation of the researcher, but the common theme to the various definitions is that the concept deals with thinking ahead. Planning, as the concept is used in this paper, refers to a process. It is a deliberate and systematic way of preparing for the future by establishing goals and deciding what needs to be done to attain them. Planning can be divided into some six interrelated and overlapping stages and they include: establishing goals and objectives, defining the present situation, forecasting aids and barriers to goals and objectives, developing action plans to reach goals and objectives, implementing the plan and the control of the plan.

Educational planning, like general planning, is a vital component of the management functions. Listing of major administrative (management) functions varies with the experts. The original listing was that made by Henri Fayol (1916) in his book "General and Industrial Management". According to him, the administrative functions can be listed in the following sequence: planning, organizing, commanding, coordinating and controlling. Other researchers (Miles 1980, Flippo 1984, Williams et al 1985, Pigors 1986) propose a sequence of planning, organizing and controlling, or planning, organizing, staffing, directing, controlling innovating and representing. The apparent differences, however are in emphasis rather than in substance.

Modern researchers distinguish between management and operative functions in organizational management research. This distinction recognizes management as the aspect which exercises authority and leadership over the operative aspect. Included in the operative functions are the procurement, development, compensation, integration, maintenance and separation of human and other resources to the end that individual, organizational and societal objectives are accomplished.

It should be emphasised, therefore, that the purpose of all the activity outlined above, both managerial and operative, is to assist in the accomplishment of basic objectives. It seems logical that the starting point of general management must be a specification of those objectives and a determination of the sub-objectives of personal function. The expenditure of all funds in the management area, for example, can be justified only insofar as there is a net contribution towards basic goals. For the most part these are goals of the particular organisation or establishment concerned. However, society tends to impose human goals upon individual establishment's goals which may or may not make an immediate contribution to an establishment's particular objectives.

Perhaps it is in order at this stage to give a brief elaboration of the component parts of this definition of general management function and we begin with planning. For administrative personnel, planning means the determination in advance of an organization's programme which will contribute to goals established for the enterprise. In education,we may define planning as the process of determining in advance the system's programmes which should contribute to goals and objectives established for the system to achieve. The process of goal establishing involves the active and enlightened participation of an educational planner his or her experties in the area of educational management.

The organizing aspect in management activities is a means to an end. After the course of action has been determined, an organisation must be established to carry it out. However, it needs to be determined which management functions contribute postively towards the system's set objectives. Once these functions are determined, the planner must form an organisation by designing the structure of relationships among educational components, levels, personnel, and physical factors in the system. It is crucial that one must be aware of the complex relationships which exist between the specialized levels and the rest of the educational system.

In theory, at least, at this stage we have a plan and an organisation to execute the plan. It might appear that the next logical function would be that of operation, doing the job. However, it has been found that a "starter" function is becoming increasingly necessary. In the above definition, this function has been labelled "directing" function, but it may be called by other names such as motivation, actuation or command. It has been increasingly realised that a considerable number of difficulties are associated with this stage in educational planning.

When we reach the controlling stage, we feel then, that at least, the management functions are being performed. Logically, the management function at this point should be that of control, that is, the observation of action and its comparison with the plan and the correction of any deviations which may occur, or, at times, the realignment of the plan and its adjustment to unchangeable deviations. Control is the management function concerned with regulating activities in accordance with the system's plan, which in turn was formulated on the basis of an analysis of fundamental system's goals.

The management functions above facilitate the implementation of the plan, for they provide authority and leadership. The activity of implementing the plan to achieve the set goals is under the operative functions. The first operative function concerns itself with the obtaining of the proper kind and number of necessary resources to accomplish the set goals. As regards development, the second operative function, it has to do with the increase of skill, through training which is necessary for proper job performance to attain the set goals.

The third operative function concerns what most management theorists call compensation. This function is defined as the adequate and equitable remuneration of personnel for their contribution to the system's objectives. However, recent studies (Steers 1984, Harris 1986) have tended to suggest a minimum importance of monetary income to employee satisfaction in the activity of plan implementation.

Probably one of the most difficult and frustrating challenges to the activity of plan implementation is the operative function known as integration. This is concerned with the attempt to effect a reasonable reconciliation of individual, societal and system's interests. It rests upon a foundation of belief that significant overlappings of interests do exist in our societies. Consequently, we must deal with the feelings and attitudes of staff in conjunction with the principles and policies of the organisations.

If the organisation has executed the foregoing functions well, it might suggest that there is a willing and able work force. The perpetuation of this state of affairs is called maintenance. The maintenance of willingness is heavily affected by communications with those actually implementing the plan. Probably the least of the operative functions is the separation function. If the first function of the personnel management is to engage and secure the staff, it is logical that the last should be the separation and return of that staff to society Separation implies that most people do not die on the job or that most people are involved only in the implementation of the plan and shall return to their regular jobs after the plan implementation activity is over. Probably it is time now we discussed the components of educational planning.

The Components of Educational Planning

The function of educational planning, like any other type of organizational planning, consists of at least six key components. These components form the basis for the process of developing the framework for performance and include the analysis of the system's external environment; determining the state of the system's internal environment; establishing goals and objectives; formulating a strategic plan; putting plans into operation and the process of management decision-making.

By external environment, it is meant those institutions or orginizations which have or may have a direct (or indirect) impact on the plan. With respect to educational planning, the external environment would consist of demographic data; economic and financial resources; socio-political climate and technological resources. Educational planners agree that a good educational plan should be based on sound and reliable data base. Such data base should be able to provide evidence of rate of increase (growth) in the population, centres of population concentration, the general infrastructure of the country, the general political climate of the society and its public image and attitude towards education innovation; and the availability of appropriate levels of technological expertise and resources.

Knowledge of the external environment should be regarded as the prerequisite for the planner to proceed to the next stage. This stage concerns itself with the analysis of the internal environment. Included in the internal environment are organisational resources: namely financial, physical, human, system and technological resources. We can describe financial resources as the acquisition, allocation and control of money for financing plan construction, inventory research and development, receivables and working capital.

This may involve, for example, cash flow, debt capacity and new equity available. It should be noted at this stage, that an educational plan has more chances of achieving its goals if the capital costs of the plan implementation activity come from internal sources. Physical resources may include ownership and accessibility of educational buildings, plants, structures, equipment and raw material reserves as well as the location of the facilities with respect to potential consumers or utilities. In educational planning, school buildings, classrooms and school equipment seem to be the most important aspects of the physical resources.

Under human resources, educational planners include but are not limited to specialise personnel and skilled and experienced management. These are the resources which become crucial when it comes to the implementation of the plan. Trained and well qualified school personnel such as managerial, academic, technical and support staff will be required in sufficient numbers, if the plan has to be adequately executed. Lack of adequately trained personnel may hinder or prevent the plan from achieving its goals.

The last component of the planning function includes the system and technological resources. Some planners tend to call these resources, capabilities. System capabilities are those process aspects which tend to support the main functions of the organisation. If the plan's main function were to expand secondary education, for example, that is, expand physical and human factors, the systems which might be regarded as supportive to the main function could include, school supervision, quality control models, school maintenance activities, revenue collecting, textbook writing and production, and curriculum development.

As regards technological capabilities, these deal more with the particular output of the educational system. In commercial and indistrial organisations, technological capabilities may include patents, customer brand loyalty or a recognised high quality product. With respect to educational systems, it has been observed that certain institutions tend to have a reputation for preparing and producing students better in certain areas than do other institutions. For example, up to 1963, Government Teacher Training College, Domasi, was seen as the only teacher training institution in this country which could prepare and produce high quality school teachers. Thus, Domasi had the technological capability to train and produce high caliber school teachers.

From the foregoing discussion, it becomes clear that an analysis of the external and internal environments provides the necessary input for the planning function, which in turn guides the other functions, especially that of plan implementation. This, probably, is the appropriate stage for us to turn to the discussion on the planning process.

The Process of Educational Planning

This section attempts to discuss the process and the problems of educational planning in general although some references may be made to our own system. Since educational planning has emerged as a key administrative function, it has been variously described as long-range educational planning; corporate educational planning, comprehensive educational planning, integrated educational planning, and of late, strategic planning in education. For our purposes here, we shall use the term strategic educational planning. We shall define strategic planning as the process of identifying, selecting, implementing and evaluating basic courses of action for the organisation. Involved in the strategic educational planning are the analyses of external and internal environment, strategic alternatives and choices, implementation and evaluation of the plan's performance.

Many experts in strategic planning agree that this important administrative tool is being used increasingly. However, its use in the non-for-profit areas such as educational (institutional) systems, social service agencies, and religious organisations, is not so pronounced. The use of strategic planning in not-for-profit areas is constrained by some key differences between these and profit making organisations. First, rarely are the goals and objectives of not-for-profit enterprises clearly delineated, communicated and defined in measurable terms.

The second constrain is that the consumers of non-for-profit services and products are frequently dispersed and not readily identified. This is compounded by the third factor, namely, that not-for-profit organisations usually do not have the resource capabilities to conduct or accurately interpret data from strategic planning analysis. Finally, from a human resource point of view, not only are many members of such organisations part-time or volunteers, they also may have a stronger commitment to their profession or clientele than to the organisation itself.

Some of the not-for-profit organisations using strategic planning have successfully done so with some important modifications. First, the planning model is simplified to incorporate three steps: (i) a strategic profile, keyed to identifying what the establishment is doing, has done and how well; (ii) testing for the consistency of the match between strategy, environment, resources and value, and (iii) strengthening the evaluation process. One promising development which may help to bring about more use of strategic planning in not-for-profit organization, is the decision of corporations to 'lend' key managers to these enterprises for a period of time.

A good strategic plan should have a conceptual framework, direction, time frame, goals and mechanism for evaluation. Conceptual framework of a plan consists mainly of the rationale for the plan. It includes problem of logistics, the realistic nature of the problem, parameters for coordination, and organizational structure for implementing and evaluating the plan. The conceptual framework necessarily attempts to answer the question, "Why plan education?"

Once justification for planning the activity has been clearly determined and spelt out, the planner proceeds to determine the direction of the planned activity. Some planners prefer to call this, the focus of the plan. In long-term plans, the tendency to shift its emphasis is more likely. Such shift in focus may be influenced by factors such as economic, financial or political. Some educational plans locally initiated but externally funded have more often shifted their focus with an attempt to accommodate or reflect the terms and desires of the donor agencies. This has both advantages and disadvantages but their discussion is beyond the scope of this paper.

Time is the next important planning dimension. It relates to when the set goals are to be achieved. Three planning horizons are identified and they include: long-range, intermediate-range and short-range plans. Long-range plans are those which deal with the decisions about the broad issues and technological aspects of the establishment. They also affect the allocation of resources over an extended period of time. Inherent in the long-range plan is itscongruence with stated goals and strategies, its particular degree of involvement with various organisational units and functions, and a provision for periodic review and revisions.

Intermediate-range plans generally have a planning horizon of between two and five years. These plans are usually more detailed than long-range plans in their involvolvement of organizational functions. Short-range plans, like intermediate-range plans are an extension of long-range plans. The planning horizon usually extends to about a year and includes more specific plans with respect to plant locations work methods, inventory plans, employee training and budgeting requirements.

It has been noted that the sole purpose of planning is to direct the process of achieving the organization's goals. The concept goals has been used here interchangeably with objectives. Some management scholars even use it interchangeably with objectives. Some management scholars even use it interchangeably with the concept purpose. To some writers, objectives are means for achieving goals but others reverse the definition. At the outset, we will not differentiate between these concepts. Plan goals can be defined as desired states of affairs or preferred results which organizations attempt to realise and achieve.

An acceptance of this definition implies, at least, two relationships between goals and management. First, goals are influenced by the aspirations of an establishment's key managers. Second, goals reflect a desired end result of the establishment's actions. Goals play an important role in the planning process. At least four reasons stress this level of importance. First, goals held guide the direction of effort of individuals and groups in the establishment. Second, goals affect how the establishment plans and organizes its activities. Consider two colleges, a large, government-supported institution, and a smaller, but growth-oriented, private college. The growth-oriented (i.e. the goals) of the private college may cause its planners to be concerned with more external aspects such as seeking outside funds from foundations, drawing a whide variety of students to campus and hirign high calibere lecturers. On the other hand, the larger public college may be more oriented towards internal factors such as control over operating expenses, proper maintenance of the facilities, and support for existing programmes.

The third important role goals play in the process of planning has to do with providing the foundation to motivate individuals to perform at the highest level of efficiency and effectiveness. Finally, goals form the basis for evaluating and controlling the activities of the establishment. Certain criteria for goals enable us to classify them as good or poor goals. Four such criteria seem to be most important and these include: clarity and specificity; timing; feasibility; and difficulty and achievability.

With regard to appraisal and evaluation process, the planner deems this to be one of the most important, yet perplexing, aspects of the management function. Ideally, the planner takes into account the evaluation component in the plan and devices appropriate mechansm through which the evaluation should be carried out. In essence, the process of evaluation attempts to answer such questions as: "What aspects of the plan have been achieved and to what extent? How committed are the system's personnel and clients to the decisions in the long run? What has been learned from the process of implementing the plan? Could we have done better making a different plan? What necessary improvements need to be done if the goals are to be achieved?

To accomplish this and be able to obtain sufficient feedback the performance of the team in implementing the plan, the overall plan goals should be translated into performance standards. This can be achieved by establishing individual goals and formal performance evaluation system to rate the extent to which the goals have been accomplished. Evaluating the results of a plan can be a time for cheer, a time for deep introspection or a time to pick up pieces. However, for every successful plan or unsuccessful plan, there is always a lesson learned.

Some research evidence (Hicks 1983, Szilagyi 1984) suggests that students of organizations identify evaluation as one of the most powreful elements of the administrative control. In an education plan for example, the process of evaluation does not divorce itself markedly from the general management function in that a sample of administrative orders is selected, the behaviours of those who carried out the plan are examined and the effects of each aspect of the plan are compared with the consequences originally intended. If the results prove ineffective attention is given to improvements which may redirect actions towards the intended outcome.

Nevertheless, the use of evaluation as a technique to control educational organizations has not been numbered among the strongest of administrative tools. Some major reasons for this include: First, educational plan assessments have focused on inputs typically, often to the point of being confused with (or used in lieu of) measures of output. Second, educational goals are decidedly ambiguous and diverse, and are often in conflict. Third, even when educational goals are clear, we find that means-ends relationships in education are poorly understood. The technology of defining organizational tasks in terms which clearly contribute to goal-attainment remain a decided mystery (Hicks 1984). Finally, education has a long tradition of awarding considering personal autonemy in the one area (instruction) which is though to be its purpose in life. Teachers are not easily touched by administrative evaluations because they are left alone to teach in their closed classrooms. Some educational systems, however, are devising new strategies for penerating the classrooms to effect the necessary evaluation (McPherson et al 1986).

Educational Planning in Malawi

The activity of planning education in Malawi has a relatively short period. The first activity to have the features of an education plan started to take shape in 1973 and was known as the 1973-1980 Education Plan. The plan was conceived here and drawn up together here but the financing of its implementation probably came from outside. The plan was essentially focused on primary school, primary teacher education and secondary education. The tertiary section of the system was strongly implied in the plan.

Among the purposes of the plan included the expressed desire to make the primary school less wasteful, to emphasize the industrial and commercial sectors, to bring educational decisions in line with national development policy, and to chart an optimum path for the system's utilities with conjoint elements. These expressed desires for the plan to realise were genuine then probably even today. It was true then and it is still true today that our primary school section is very wasteful. An attempt to emphasize the role and contribution of the commercial and industrial sectors in the educational system was an excellent move in the right direction. In fact one would argue that all the purposes articulated in that plan were founded and realistic as far as the situation was then, if not today as well.

It does not need to be over-emphasized that the 1973-1980 education plan met with problems as far as achieving its goals was concerned. The fact that the ills it wanted to address itself to still prevail in the system, probably to an extent larger than was the case then, suggests that the plan failed to realise its goals. Some experts in the area agree that there were certain limitations in the plan which could have contributed to the plan's failure.

They also agree that if the plan were re-drawn today, probably some of the earlier limiting factors would also prevail.

Probably the major limitations which affected the success of the 1973-1983 education plan included: lack of reliable statistical data upon which a good plan included: lack of reliable statistical data upon which a good plan would be based; lack of demographic data regarding schools and their location as well as centres of population concentration; lack of local development (expenditure) capital for implementing the plan, and lack of human and technological resources for executing the plan. It has been noted in the section on "The Components of Planning" that a good plan should have a solid base if it has not succeed and achieve its set goals. Perhaps, one could ask how we could avoid these problems.

Experts agree that some of these problems could have been avoided if the correct procedures were adopted. An educational planner can avoid falling into these pitfalls by determining the data base which is relevant for the plan and a thorough analysis of the external and internal environments which may, or actually affect the plan, and a determination of adequate human and other resources for executing the plan. This is a strange phonomenon to the professional educator. Planning the activity we are about to carry out rule of the profession. For example, a classroom teacher plans (or is expected to plan) his course work, schemes of work, records book(s), instructional materials, audio-video aids and other pieces of apparatus, long before the actual teaching period begins.

At the end of the lesson, a teacher is supposed to criticise his/her lesson in order to determine whether or not the lesson achieved its aims. This procedure applies to the plan also. After an educational plan has been executed, there should be an appraisal or evaluation of the plan performance. As has been outlined in the section on "The Process of Educational Planning", plan evaluation should help the planner as well as the clientele to determine what has been achieved and to what extent; and what has not been achieved and why. Such information should help the planner and the system as a whole to learn from previous problems, difficulties and mistakes, and try to avoid them in future plans.

There is a strong feeling that the 1973-1980 education plan was not evaluated. If it was then not adequately, because a look at the 1985-1995 education plan reveals a certain number of structural weaknesses which would have been avoided if the 1973-1980 plan evaluation taught us any lessons. Here, one may be thinking about the pledge in the 1973-1980 plan to reduce wastage in the primary school, the goal to increase and improve primary school teachers and bring educational decision in line with national development policy among the many goals that are repeated in the 1985-1995 education plan.

If the 1973-1980 education plan were evaluated, the results of such evaluation would assist the planner of the 1985-1995 education plan to take into account such information or refrain from making a similar objective if the evaluation of the 1973-1980 plan indicated that such a goal was unattainable in the foreseeable future. This is even so for the primary teacher question. In the 1973-1980 plan, it was planned that the training of T_4 and T_3 teachers for example, would be phased out in preference to the training of T_2 teachers only or a common primary school teacher's grade. Nobody knows definitely why the objective could not be achieved. In the new plan this objective has been implied strongly. One would agree that substantial evidence is lacking to make us believe that these plan objectives are realistic. Probably we could raise these arguments for all other objectives.

Probably there are other issues or problems in the educational system which require similar if not more attention by our educational planners if the present state of affairs has to be improved. Our educational planner would probably find more challenging problems if they turned their attention to problems concerned with the nature and structure of our educational system; the problem of modifying the basic educational structure and institutions to suit the needs, the pattern and strategy of development in the country, and indeed, for the planners to note that the process of educational innovations and other modifications should follow a thorough analysis of the existing situation and its problems and how these should be remedied, rather than the reverse.

The socio-political needs and the size of the school-age children that existed during the British colonial era are not the same today, they have changed. We believe that the educational system should respond to such changes. During the British colonial era, the educational system was used to produce the few clerks, police and messengers that form of government needed for its day to day duties, and so it was relevant that the system should be very competitive, elitist and academic. Education then helped to maintain the status quo but education today should be for socio-political, economic and individual development. In short the aims of education and the aspirations of the society have radically changed and so should the system of education. However, we are not suggesting a change for its own sake, we are suggesting that a thorough study of the existing state of affairs should be done to determine the problems and then suggest remedies or solutions to those problems. If the best solution is to modify the system then be it.

In summary, probably one would argue that educational planning in this country should be an ongoing process. It should begin with a thorough and critical research to determine the efficiency (and lack of it) and functional utility of the system by justifying the duration of the primary section, the functional utility of its curriculum and the examination structure of the entire system from Standard 5 to Form 4. Such exercises would help to determine the potentials of the system to develop towards meeting the needs and aspirations of the society as well as of individuals. Fundamental changes in our system are long over due.

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C H A P T E R 5

Curriculum Planning and Development in Formal and Non-Formal Education Systems

CURRICULUM PLANNING AND DEVELOPMENT OF FORMAL AND NON-FORMAL EDUCATION SYSTEMS

Introduction

1. There is ample evidence to show that current education systems and their curricula are failing to equip people with the knowledge, skills and attitudes needed in a world of change; that the current educational structures and formal education content create divisions within society which leave behind them a flotsam of disappointed and disillusioned young people seeking employment opportunities which do not exist; and that even if more schools were provided, it is becoming increasingly difficult to do so, in the face of increasing population growth and limited financial and material resources.

2. Perhaps it is better to remind ourselves that formal schooling is just part of education; that education cannot be conceived of as taking place at certain ages, stages, times and places; but that it is always the unfinished business which is always there to be attended to. Further that educational opportunities (formal and non-formal) must always relate to each other both horizontally i.e. school, home, media, work experience, environment etc. and vertically throughout the different stages of one's life. At the same time, it must be emphasized that while there are many pathways to learning, no one path should be considered as being better than the other, but being more efficient and more appropriate. Finally, that methods, materials and delivery systems must also vary to suit purposes and the means available.

3. Whatever path to learning we choose and whatever method of delivery and resources devoted to education, it is essential to satisfy the minimum learning needs of an individual viz:
   - Literacy, numeracy, adequate verbal expression, some knowledge of citizenship and of the physical and social environment of health and nutrition learned by methods which arouse curiosity, develop self reliance and encourage physical and mental adaptability. Adults will also need to know about matters relating to bringing up a family, conditions for employment and how to increase producit productivity.1/

4. In terms of non-formal education, such minimum learning needs would comprise of:
   i) positive attitudes towards co-operation with one's family and fellow citizens, the community and national development; and development of ethnical values;

1/ H.M. Phillips: Basic Education: A World Challenge, John Wiley, 1975, p.180

ii) functional literacy and numeracy so that one can read sith comprehension; write a legible letter and make simple computations in everyday life and activities;

iii) a scientific outlook and an elementary understanding of the processes of nature in the particular areas, such as health, nutrition, food storage etc.;

iv) functional knowledge and skills for raising a family and operating a household;

v) functional knowledge and skills for civic participation in local and national affairs, political and civic duties, voluntary associations and co-operatives. 2/

5. These minimum learning needs can be attained through formal and non-formal education provided rich curricula are developed to ensure the fulfilment of such minimum learning needs. How to develop such curricula is the subject of this paper and analysis i.e. this paper is concerned with developing guidelines for curriculum planning and development in both formal and non-formal education. It first analyses the concept of curriculum and develops a systems model through stages in the planning and development of curriculum in formal and non-formal education systems.

II The concept of Curriculum

6. There is so much written about curriculum that literature is replete with writings about the definitions and the concept of curriculum, decision making; curriculum planning; curriculum theory; curriculum development and evaluation etc. Most writers on this subject, have been compelled to define curriculum. If we cannot agree as to what curriculum is, it would seem futile to try and come up with an acceptable package of what curricula best equip the learner for a productive life, let alone develop guidelines for the planning and development of such curricula.

7. It seems reasonable therefore at this juncture to review some of the definitions of curriculum before developing guidelines for its development.

8. The word curriculum may be used in three ways:- as a curriculum i.e. as a written document;- as the name of a system of schooling;and as a title of a field of study.

9. The first of this falls under the heading of curriculum design which may be defined "as the substance and organization of goods and culture content so

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2/ P.H. Coombs, R.C. Prosser and Manzoor Ahmed: ed Paths to Learning, UNICEF International Council of Educational Development, 1973, pp 13-14.

arranged as to reveal potential progression through levels of schooling".3/ Looked at it this may, curriculum design becomes a focal point in all curriculum thinking.

10. However, other educationists have emphasized other aspects of curriculum as follows:

11. "Curriculum design is a statement which identifies the elements of curriculum, states what their relationships are to each other, and indicates the principles of organization and the requirement of that organization for the administrative conditions under which it is to operate".4/

12. One may identify curriculum design under three notions as follows:

    - As an arrangement of selected and ordered learning outcomes intended to be achieved through instruction;
    - As an arrangement of selected and ordered learning experiences to be provided in an instructional situation, and - as a scheme for planning and providing learning experiences.5/

13. Whatever definition we may give to curriculum design, it is the design characteristics which make a curriculum look the same or different. In fact there are two fundamental dimensions of curriculum design viz. the content of the curriculum i.e. the total substance, the elements and the arrangement of the document; and the mode of the organization of the various parts of the curriculum -- the cultural content of the curriculum.

14. Our concern here is not so much as curriculum design, but curriculum in general. The intention is therefore to define curriculum as commonly understood by both educationists and laymen and decipher the elements which should be included in its development.

15. According to a number of definitions given by Beauchamp; curriculum is defined as:6/ (a) whatever content is used purposely by the school as a stimulus to learning:

    (b) a sequence of potential experiences is set up in the school for the purpose of disciplining children and youth in group ways of thinking and acting. This set of thinking is referred to as the curriculum.

3/ George A. Beauchamp - Curriculum Theory. The kagg press, Welmette, Illinois, 1975, p.101

4/ Hilda Toba: Curriculum Development: Theory and practice, Harcourt, Brace & World Inc., New York, 1962, p. 421

5/ Mauritz Johnson Jr. on the Meaning of Curriculum Design: Curriculum Theory Network, spring, 1969

6/ George A. Beauchamp -- but cited, pp 105-106

c) that body of value-goal oriented learning content, existing as a written document or in the mind of teachers, that, when energized by instruction, results in change in learner behavour;

d) a planned set of human encounters thought to maximize learning learning;

e) curriculum is now generally considered to be all of the experiences that learners have under the auspices or directions of the school;

f) curriculum is a vital, providing, complex interaction of people and things in a final setting. It encamposses questions to be debated, forces to be rationalized, goals to be illuminated, programmes to be activated, and outcomes to be evaluated, and

g) the term curriculum includes all of the experiences for which the school accepts responsibility.

16. In most of the foregoing definition, focus is on the concept of experiencei.e. that the definition of curriculum is dominated by the notion of experience or learning experience. This is absolutely important in a learning situation because a learner needs to engage himself/herself in activities so that he/she can learn something which he/she did not learn before.

17. Through activities, learners tend to recognize the consequences of what they are doing and how these relate to their present and future activities. Since only the learner can have a learning experience, teachers/instructors should create environments in which the learners will have learning experiences. The curriculum planner can only anticipate the conditions under which learners may have learning experiences. However, because the notion of experience is often substituted for activity, curriculum planners tend to set forth an array of activities as part of the curriculum being designed. More often than not, this seems to be the case in non-formal education where a set of activities planned for learners tend to constitute the formal or non-formal education curricula.

18. In conclusion at this point of discussion, it may be argued, based on some of the foregoing definitions, that curriculum is a written document containing a set of activities from which learners can learn something, or a set of statements about the goals, aims, objectives and specific objectives of education; a statement stipulating the ways in which the curriculum is to be used i.e. by stating the relationships between the curriculum and the development of instructional strategies: i.e. from curriculum planning to curriculum implementation; and finally an appraisal scheme for evaluating the effectivenss of the curriculum.

19. Most curricula do not have all these elements, but at least they contain one or two of them or may fall under the general umbrella of the four elements. Since in many African countries, educational planning tends to put non-formal education at the periphery, one may be acussed of over-optimism in suggesting guidelines for curriculum planning and development of non-formal education.

However, given the fact that we accept the notion of learning experiences either through formal or non-formal approaches, we have reason to propose such guidelines for both formal and non-formal education curricula. The next section therefore will be devoted to these guidelines through a number of steps.

III Curriculum Planning and Development of Formal and Non-formal Education

20. Most nations are more concerned with curriculum planning and development at the primary and secondary levels than at the tertiary level. This is understandable considering that primary and junior secondary education are concerned with the development of basic education components of which are: communication skills and general knowledge including numeracy, literacy, cultural knowledge, values an attitudes, scientific and civic knowledge; life skills and knowledge such as nutrition, health and how to manage a household; production skills related to income generating activities; and higher skills needed by society for the delivery of other basic needs.

21. The development of these is not necessarily the prerogative of formal education but that of non-formal education as well. In non-formal education has to supplement and complement formal education in meeting basic human needs, then there is need to effectively plan non-formal education curriculum, and hence the necessity for providing these guideli guidelines for both formal and non-formal education.

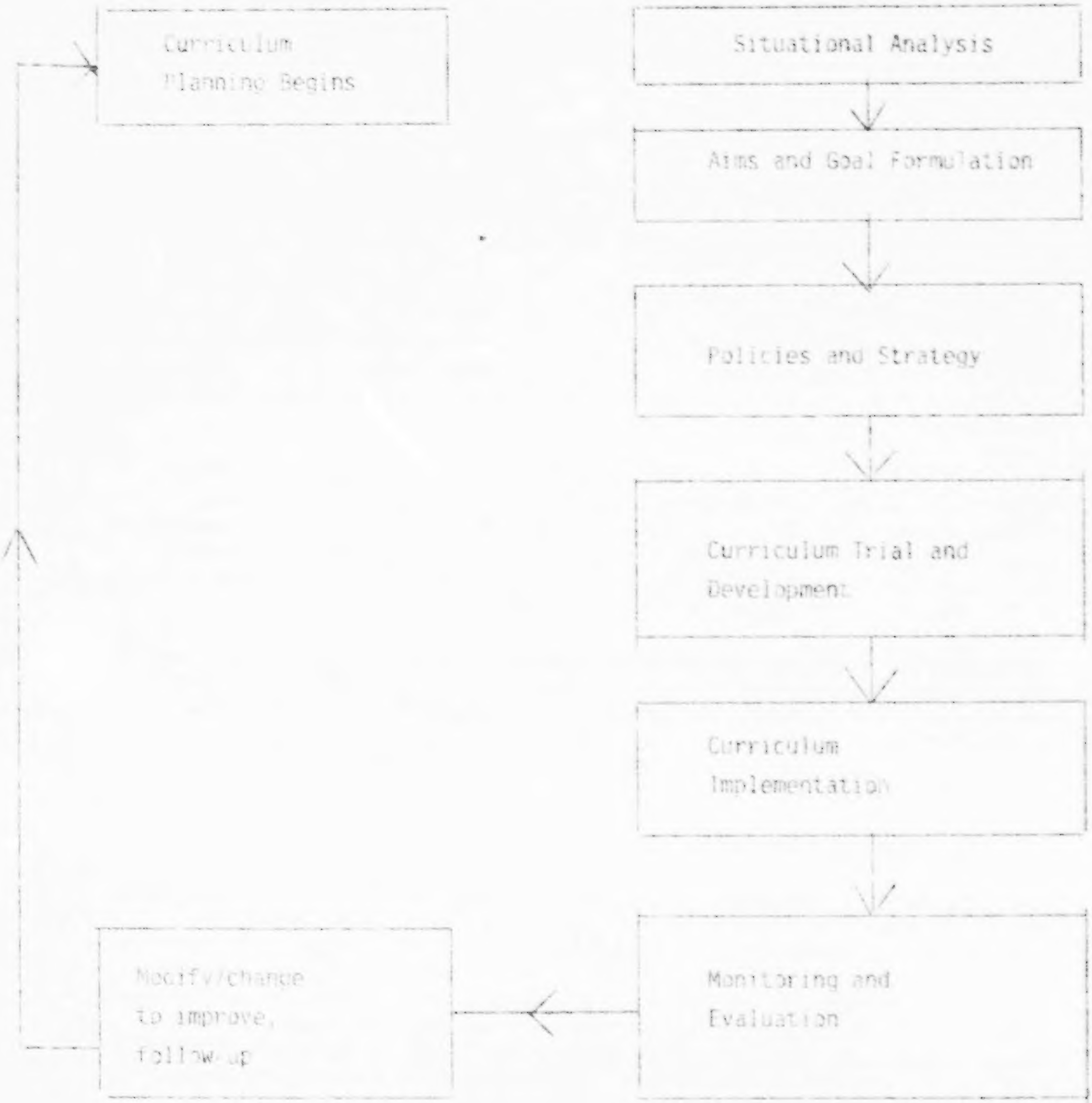
22. Curriculum planning and development involves eight components although they are not necessarily sequential, both that they form an integrated and dynamic process vital to satisfying the basic human needs. The eight processes are shown in the form of a system's model as shown in figure 1 and each process will be treated in great detail in the forthcoming pages.

(1) The Need of Curricular Planning

23. Like educational planning, curriculum planning is essentially a decision making process i.e. - that it entails taking decisions; - that it depends on the existence of alternative courses of action; - it involves deciding in advance what to do, how to do it; when to do it; and who is to do it;- that it bridges the gap between the present and the future; - that curriculum planning is an intellectual process trying to make things happen and not leave them to chance. It is a conscious demonstration of the courses of action and the basing of decisions on purpose, facts and considered proposals and estimates; and

- that effective curriculum planning takes place in a context of fundamental principles.

Figure 1: Curriculum Planning and Development: A Systems Model


Curriculum Planning Begins
Situational Analysis
Aims and Goal Formulation
Policies and Strategy
Curriculum Trial and Development
Curriculum Implementation
Monitoring and Evaluation
Modify/change to improve, follow-up

......9/......

24. If countries are to plan their curriculum effectively, some of the following conditions ought to be present if a good job is to be done:

a) the legal basis for educational and curriculum planning, i.e. that there should exist in a country an act of parliament, a degree, a law or an ordinance which makes it legal for a ministry of education, an institution, or an organization to plan the country's curriculum for both formal or non-formal education; or give legal responsibility to a Ministry, an institution, organization or body to engage in curriculum planning for the country;

b) the existence of trained, qualified and adequate staff for curriculum planning i.e. a cadre of trained an well-qualified staff on a full or part-time basis to carry out all the functions of curriculum planning;

c) technical sophistication, competence and experience in curriculum planning to take into account the country's culture, ethical principles, the social economic and political objectives.

25. Given the foregoing principles, and that a country is aware of the need to plan its curriculum, it will be necessary to analyse the present situation (situational analysis); formulate the aims, goals and objectives in relation to national educational, social, economic and political goals, aims and objectives: formulate policies and strategies for curriculum planning, development, implementation and evaluation; and that there is a follow-up and feedback so that improvements are made to subsequent curricula.

26. All these can basically be grouped into the next seven processes of curriculum planning viz;

i) the gathering of basic information about the context in which the changes are to take place -- a detailed analysis of the present situation as a spring board for future action;

ii) deciding aims and objectives as pointers to where we want to do;

iii) planning a strategy for change to ensure that resources are effectively utilized;

iv) the process of curriculum development which involves devising the material and trying it out;

v) implementing the curriculum in schools;

vii) follow-up, change to improve and modifying where necessary.

2) Situational Analysis

i) The kind of information needed

27. Information needed will be about the system, the learners, the teachers, the communities and about other parallel learning systems both national and international. In each of these cases, the analysis will consist of these aspects:

a) About the System:

- basic demographic and statistical information such as school age population, number of schools and their distribution, class sizes, enrolments, progression rates, staffing information, financial allocation, materials and equipment;
- legal and administrative information e.g. current legal provision and requirements; policies and practices in respect of responsibility for school buildings and construction, supply of instructional materials and equipment; the control of schools or institutions; financial and administrative responsibilities accorded to central and local governments, local councils, parents communities, teachers and heads of schools/institutions; responsibilities for assessment, examinations, selection of students, certification and accreditation.
- current practices of curriculum planning and its development e.g. what is the current practice in terms of the origins of curriculum. Languages in use; time-tables actually followed, coverage and subjects taught as distinct from subjects officially recommended. How much of what is recommended at the planning stage is actually implemented or followed up.
- availability of classrooms, materials and equipment, special teaching rooms and other special rooms e.g. laboratories, libraries, arts and woodwork rooms, technical workshops, home economics rooms, service rooms and recreational facilities.

b) About the Learners

28. For a curriculum to satisfy the basic needs of learners, it will be necessary to analyze the following:

- Special and cultural backgrounds that of children, youths or adults. In this regard analysis should be made of the patters of learning authority within the home and family (more of paternal or maternal authority) norms, values and customs, work and duties performed and expected of the learner;

- language and perception in terms of language used and spoken in the home; the relationship of the mother tongue to the language of instruction and to the content of the curriculum and its demands; and the relationship of the mother-tongue to the national language and not necessarily the language of instruction;
- the learners visual perception in relation to the curriculum materials used;
- physical and psychomotor development in relation to the demands of the curriculum, health, nutrition, food, water clothing and shelter;
- cognitive development such as ability to comprehend ideas and processes at various stages and levels of instruction in relation to the current demands of the syllabuses;
- effective development in terms of ethical values, attitudes and responsibilities;
- interests aspiration and expectations of learners as to whether the curriculum meets individual, community and national needs.

c) About the teachers

29. Information about teachers would range from;

- the education and training of teachers i.e. the length and type of training; language understanding and comptency; knowledge, skills and understanding in relation to the demands of the curriculum and to national and development needs;
- the relation between teachers, learners, community, inspectors, administrators, proprietors, parents, associations and other agencies;
- composition of teachers, whether nationals or expatriates; qualified or unqualified, temporary or not; their sex (male or female; fields of specialization and teaching experience; teaching loads and teacher/student ratios; and teacher/student ratios;
- interests, aspirations and attitudes of teachers to curriculum changes; their special knowledge and skills; their readiness, preparedness and enthusiasm as regards the demands of curriculum.

d) About parents and communities

30. In planning curriculum an analysis should be made of the role to be played by the parents and communities; and an assessment should be made as to how much success is dependent on parents and communities involvement. In particular, analysis should be made of;

- resources for learning i.e. both physical, cultural and human resources which are available within the communities in relation to the present and potential demands of the curricula; those resources which can be or are provided by parents; resources available within the parallel learning systems of formal and non-formal education;

- attitudes and values considered by parents and communities as important and worthwhile, desirable or undesireable; and the parents/communities to the present schooling its curriculum and outputs;

- needs and goals of education as seen by communities and parents i.e. whether the present curriculum meets their development and learning needs and the relation of these to the wider goal of society and the nation.

Note: Parents and communities which consider non-formal education as an alternative to formal schooling or as providing a second chance to those in need of formal education, will always be interested in ensuring that non-formal education curriculum follows closely that of the formal system and its implementation is as close as possible.

e) About Administration and Inspection

31. Information will be required on the administrative structure of the system.

- whether it is centralized or decentralized;

- the availability of administrative staff to oversee the development of curriculum, the supply and distribution of instructional materials, equipment and other materials;

- adequate supervisory staff to provide guidance to institutions and teachers in the implementation of curriculum;

- transportation system to ensure ease of travel of administrative and supervisory staff for evaluation purposes.

f) National, International and other Learning Systems

32. In planning curriculum for non-formal education, it will be necessary to take into account the formal education system curricula and that of other national or international education system's curricula such as:

- current content and future potential of formal and non-formal programmes in agriculture health, political, civil and religious education, and mass media;

- consideration should be given as to how to complement and suplement formal education with non-formal education programmes:

- Parallel programmes in similar national contexts -- (both formal and non-formal) such research, production of textbooks, instructional materials and equipment; evaluation and analysis of data; development of curriculum centres and institutes of education.

(i) Collection of Information

33. Knowledge of what information is needed for curriculumm planning is not enough unless we are aware of who is to collect that information and how it is to be collected i.e. the agents and methods to be used for collecting information.

a) The Agents/Information collectors

- Most of the agents responsible for collecting curriculum information will either be statistical service officials from various ministries engaged in formal and non-formal education from institutes of education, curriculum centres, adult and correspondence colleges; or administrators, inspectors, and advisors, research workers and staff of colleges and universities, teachers and student trainees, parents, the community and employers;

- Information about the educational context may be collected by people acting as agents for locally or nationally organized research institutions or survey schemes; and by those interested in improving the system or improving their competence.

b) Planning and Organization

34. One of the major problems of curriculum planning is that of organization; administration; and what method to use to collect information; and even how to evaluate the outcome.

- As regards administration and organization it will be necessary to examine such issues as; the type of machinery needed for curriculum planning and development; the sources of financing; and how work done by the various agents is to be given proper recognition.

- As regards method to be used it will be necessary to clarify such issues as to who identifies the kind of information needed for curriculum planning; and how is that information to be collected and by whom.

- As regards outcome, how are the results of situational analysis to be published and having done so how are they to be incorporated into curriculum planning and its development.

3 Formation of Aims and Goals

i) In planning a curriculum of a country be it for formal or non-formal education, account should be take of:

- the country's political philosophy and policies; the economic and social goals, needs and values;

- the country's different cultures, ethical values, religious and political concerns; need, aspirations and expectations of different communities and societies;

- safeguard the needs of individuals as well as that of the nation;

- the human and material context of the curriculum and its implementation;

- the nature and structure of knowledge;

ii) Curriculum planning should take into account the aims goals and objectives for national policy;

- aims, goals and objective of the different levels and types of education within the context of formal and non-formal education;

- aims, goals and objectives of the different subjects or groups of subject, and

- the goals of individual schools, local areas or communities and those at national level.

iii) Curriculum objectives, aims and goals should be formulated in relation to the selection of curriculum content and its evaluation. Such a formulation process involves;

- the promotion of debate, discussion and diffusion of ideas at various levels within the community and the nation involving a variety of individuals, institutions, organizations, interest groups from both formal and non-formal education systems, from political, social, economic and religious interested groups and from local communities;

- translating such discussions and debates into statements, goals, aims and objectives for the different levels and purposes. This is often achieved through organized curriculum meetings, committees and panels;

- the translation of such aims, goals and objectives into concrete terms or expressed in behavioral terms of what is expected of the learner at the end of the programme i.e. the expected outcomes of a curriculum at different levels of instructions;

- expressing the statements in terms of the "core" and optional curricula for in learners;

- the planning implications include the process of administrative support for such decision making; the ways and means of financing curriculum development and its implementation, publication and dissemination of results.

35. While the goals, aim and objectives may be clear and well formulated, and may be accompanied by well articulated curriculum content, it is not enough to have them as such unless concrete steps are taken to translate them into action in schools and institutions through well-laid policy and strategy.

The next section therefore examines the issues of policy and strategy in curriculum planning and development.

4. Policy and Strategy

i) Policy in respect of curriculum planning involves taking decisions about:

- The agencies for change and for the co-operation of change in the ministry of education itself i.e. that the various sections, departments, units, etc. of the Ministry of Education or any other Ministry involved in formal or non-formal education must be committed to change through its agencies for/and co-ordination of change.

- The agencies of change and for the coordination of change in various educational institutions such as colleges, schools, universities, institutions, special centres, curriculum centres, examining boards;professional institutions;and the public at large.

- The pattern, method and extent of change;decisions have to be taken about changes in the pattern structures which relate to curriculum policy; to issues related with centralisation and decentralisation; the sources of initiative; and the degree of flexibility. Decisions will have to be taken as to whether such changes will also have to be made through syllabus; in the way material is presented in schools; through in-service training given to teachers/tutors; and in the content and administration of examinations.

36. In non-formal education, examinations are useful to the extent that they confer on the learners an acknowledgement of achievement and possibilities for wage or self employment. Change in curriculum in this respect is welcome to the extent that it provides for self-development, employability, personal rewards, recognition and even change of status.

- As regards the extent of change a lot depends on whether curriculum changes are desireable, undesirable, possible and impossible;on the availability of finance for equipment, instructional materials supervision and follow-up.

- Another area where decisions have to be taken will be the priority areas for change. Where in our curriculum are changes most urgently needed. Is it at the first or second levels of the educational system; in what areas/subjects and for what purpose -- educational, social, political or economic. In non-formal education, priorities for changes might be in the administrative affiliation or in the way it is funded or in according priority to the sector.

- Policy decisions will also be taken as regards to timing for change - i.e. when will the process start; and about the expected maturation of particular outcomes; and on the flexibility which may allowed in respect of such changes. Some changes allow for very little flexibility.

- Another policy decision which must be taken is in respect of channels of communication for the dissemination of informations; for inter-communication between different agents of change; for evaluation, monitoring and feedback and for reaction from the general public.

- Decisions should also be taken in respect of the relationship with other agencies for change such as those engaged in other types of non-formal education e.g. adult literacy, agricultural extension, health and child care, community service; correspondence education, extension studies etc. and those of formal education, technical and vocational education; with mass media; and with social and political organizations/bodies.

ii) In planning curriculum, analysis and decisions would also have to be made as regards the implications on policies for such matters as:

- the building and equipment design for effective implementation of the curriculum;

- materials development, procurement, supply and distribution;

- the construction of buildings and service facilities;

- capital development in its various forms;

- recruitment of staff-teachers, tutors service staff, their training and retraining;

- the training of inspectors, supervisors and examiners;

- examination policy, and design, certification and accrediation;

- the structure and management of the system of educational administration;

- decisions about departmental and inter-ministerial co-ordination; and policy decisions regarding funds and technical assistance.

37. These policy decisions have to be modified, reviewed and reformulated following more detailed results arising out of curriculum trials and its development. It is this aspect of curriculum trial which ought to be considered next.

5. Curriculum Trial and Development

i) Once a situational analysis has been done, aims, objective and goals set, policies and strategies formulated and refined, it becomes necessary to give a trial run to the curriculum being developed. Such curriculum trial is very much dependent on:

- the human, financial and material resources available for curriculum development process;
- the facilities available for curriculum implementation (administrative, financial material and human);
- local, regional and national aims goals and objectives; the policies and strategies set; and a whole host of a factors associated with curriculum development.

ii) Curriculum trial and development involves;

- informing headmasters, teachers, parents, educational administrators, supervisors and inspectors involved in the trial programme about the programme; informing teacher trainees, instructors, the community as a whole through the mass media and other fora;
- producing a detailed scheme of activities, assignment of responsibilities, employment of personnel, administration, supervision and finance, and means of motoring and evaluating the programme;
- planning and conducting a trial programme in schools involving decisions on which schools and teachers are to be involved in the programme; planning the programme of study (syllabus); producing trial materials, conducting and monitoring trials; and ensuring that adequate provision is made for supervision, monitoring and evaluation; training personnel involved in trials; and ensuring adequate and timely distribution of materials;
- As monitoring and evaluation take place staff involved should be able to give a feedback so that the programme, materials and equipment and techniques can be modified, changes made in the trial programme and training of personnel; that teacher training colleges/institutions also conduct trial programmes so that they incorporate the activities in their pre-service and in-service programmes.
- Ensuring that the forms of assessment and examinations are incorporated in the trial exercises and programmes.

(i) In many African countries where the educational systems show high degree of centralisation, there is need for co-ordination of subject specialists and integration of their work. For this co-ordination and integration to be effective it is necessary that;

- there should be prior selection of priorities, and fields/areas of integration before the panels of specialists start the detailed works of planning in their respective subjects;

- that there should be provision of facilities for joint planning and materials production, or for maximizing the use of existing facilities;

- that there is a careful selection, systematic briefing and training of curriculum development personnel, field supervisors and writers who are capable of understanding the prupose of the project, its aims, goals and objectives, the context in which the programme is being undertaken, the administrative and financial implications and that they have adequate and appropriate skills for curriculum development, monitoring and evaluation;

- that a careful selection is made of the trial schools, and that adequate briefing is made to both the schools and the staff. Schools selected for trial should be typical, varied in character but accessible to all those involved in the trial period, and such schools should not have staff changes during the trial period;

- there should be adequate time given for trial period to ensure that feedback and modifications take place. Such a period could be four years or even three; and such a period may be dependent on previous trial priods;

- there should be adequate degree of flexibility to allow for exploring the unexpected difficulties to be overcome, and taking care of the inevitable difficulties associated with curriculum development.

38. Once the trial period is over, and the evaluation results show that a wholesale implementation can be undertaken, the next process is that of curriculum implementation for the whole country. In non-formal education for instance, a trial programme of literacy compaign might involve a few selected localities and then upon completion of the trial period, a full scale literacy programme would involve the whole nation for the elimination of illiteracy in the country.

6. Curriculum Implementation

39. Having had the period of trial and the results having shown good signs for the better, a full curriculum implementation ought to be undertaken. The process of doing so is gradual and uneven.

40. Certainly there are differences and variations which are likely to occur depending on the curriculum strategy and the style of development adopted. However gradual the process may be, and whatever strategy may be adopted, curriculum implementation involves the following process:

- the introduction of new programmes and materials such as books, and audiovisual aids, equipment an apparatus into schools and colleges;

- introducing changes in building and equipment policies such as the new styles of buildings and furniture, production of equipment and instructional materials, supply, purchasing distribution and storage;

- introducing changes in organization at school and class level; the relationship between schools, colleges and the community; and organization of the education services. Such organizational changes are about to affect staff employment, staff recruitment, time-tabling and school administration;

- training and retraining education administrators, inspectors, headmasters, teachers, tutors and instructors who should be conversant with the changes being made; what these changes are; and how these changes can be brought about either through training at schools/colleges, education institutions, curriculum centres or by private study;

- providing resource facilities for teachers, tutors/instructors and other staff for the effective implementation of the curriculum;

- introducing change in the pattern of examinations and assessment to reflect the requirements and needs of the new curriculum; and

- ensuring that parents, the community, the learners themselves and the teachers have been given full explanations for the changes and that they are fully involved in the implementation of the curriculum.

41. Curriculum implementation calls for the active participation of all concerned, the effective co-ordination of programme implementation and the active co-operation of teachers, learners, educational administrators, inspectors, examination and assessment officials. Implementation, however must be followed by evaluation to see how effective the programme has been in fulfilling the aims, goals and objectives of the system.

7. Evaluation

42. One of the cardinal points about evaluation is that is should not be left until the very end of the programme. Rather, it should take place throughout the programme i.e. incorporate in the programme continuous assessement; or in more familiar language -- curriculum development and implementation should involve both formative and summative evaluation in which case we need to;

- decide what policy to persue regarding evaluation, the nature purpose and the extent of the evaluation and what outcomes are expected;

- evaluate the product and the process and see how far the needs of the products have been filfilled by the curriculum;

- ensure that the channels of communication are effective for easy transfer of information about the programme, that modifications can be easily made and any feedback acted upon;
- evaluate the process and the system in respect of its efficiency; relation to the public assessment and the national selection policies and practices;
- evaluate the outcomes in the learners, teachers, administrators and inspectors and curriculum workers;
- as a result of evaluation results, modify the programme and improve on curriculum and make necessary changes.

8. Follow-up and Feedback

43. In the many definitions given in Section II of this paper it was emphasized that curriculum development is a continuous process which begins and must come back to where it began. It is therefore, absolutely necessary to continuously review and follow-up the activities with constant feedback. To ensure that there is follow-up and feedback, there is need for;

- continuous training, retraining and in-service courses for all personnel in the field of education-teachers, administrators, inspectors, instructors and curriculum planners and evaluators;
- headmasters, administrators, inspectors and curriculum planners to be given full support for the programme;
- information is always collected, analysed and and disseminated to all those concerned;
- aims, objectives and the goals of education are constantly reviewed and updated to reflect the needs of individuals and those of the nation and society;
- modification of instructional materials, equipment, methods, textbooks and educational technology;
- reviewing the evaluation and assessment procedures, and examination methods;
- continued feedback and to ensure that modifications and changes are made.

IV What Next; the Quest for Improvement and Excellence

44. Perhaps what one may have to say about Africa is that we are either too timid, too unliberated, too conservative, or too cautious to overhall the educational system, its curricula, method, instructional technology and its evaluation and assessment procedures. It is however to be emphasized and accepted that a lot of changes have taken place in African educational system, the policies and objectives to reflect changing development needs, the curricula and the methods and techniques.

Yet Africa appears inherently committed to some form of international education standards, international acceptance in the quality of education; some form of international/external counselling, guidance, advice, direction, directive, enforcement and imposition on the length of the educational systems, the policy options, the curricula to be persued; the effective utilization of human, financial and material resources and the financing of education.

45. While there has been a general growth of confidence in defining and developing curriculum to meet development needs, Africa is still preoccupied with specifying priorities in the primary and secondary schools curricula and the relation of these to development needs. More important has been the preoccupation to develop the type of curricula suitable for different abilities and different contexts and a curriculum which is amendable to self-employment in a continent seriously short of salaried employment. Further, there has been very little or at least inadequate dovetailing of formal with non-formal education curricula. Not much provision has been made for a curriculum which allows for learning while working and while learning.

46. Perhaps of more concern is the need to develop programmes in the perspective of their implementation i.e. the need for greater effort to determine and ascertain the realities of the context in which curriculum implementation takes place. This calls for an increase in research activities and research mindedness at all levels; and a new pragmatism to limit programmes and activities to what is possible in the educational context with the learners and teachers. It is very unkind of an educational system to expect teachers to teach physics, chemistry and technical subjects and to accuse students of poor achievement in science subjects and lacking technical skills in a system where there are no laboratories, science equipment and materials and no technical workshops and equipment.
Many accusations of the African curricula, that they are failing to equip learners with the right knowledge, skills and attitudes and are unable to meet development needs are born out of unrealistic expectations.

47. One solution to this would be to increase our efforts and commitment to training for all those engaged in the field of education; education administrators, curriculum planners and developers, educational planners; inspectors and supervisors, heads of schools and institutions, teachers, tutors, instructors, correspondance educators, extension workers, social and field workers.

48. A second solution would be to invest more in the process of curriculum implementation and follow-up even if this means realizing economies in one sector of the system at the expense of another. For instance many countries put greater emphasis in pre-service training at the expense of in-service training, school supervision and inspection. Rather, more efforts should be spent on in-service training and supervision to ensure greater effectiveness in curriculum implementation. At the same time there should be greater concern with accountability with curriculum planning especially in non-formal education. There are many ministries, organizations, agencies, institutions etc. With a stake in non-formal education and often without co-ordination and collaboration. No one seems accountable for their curricula.

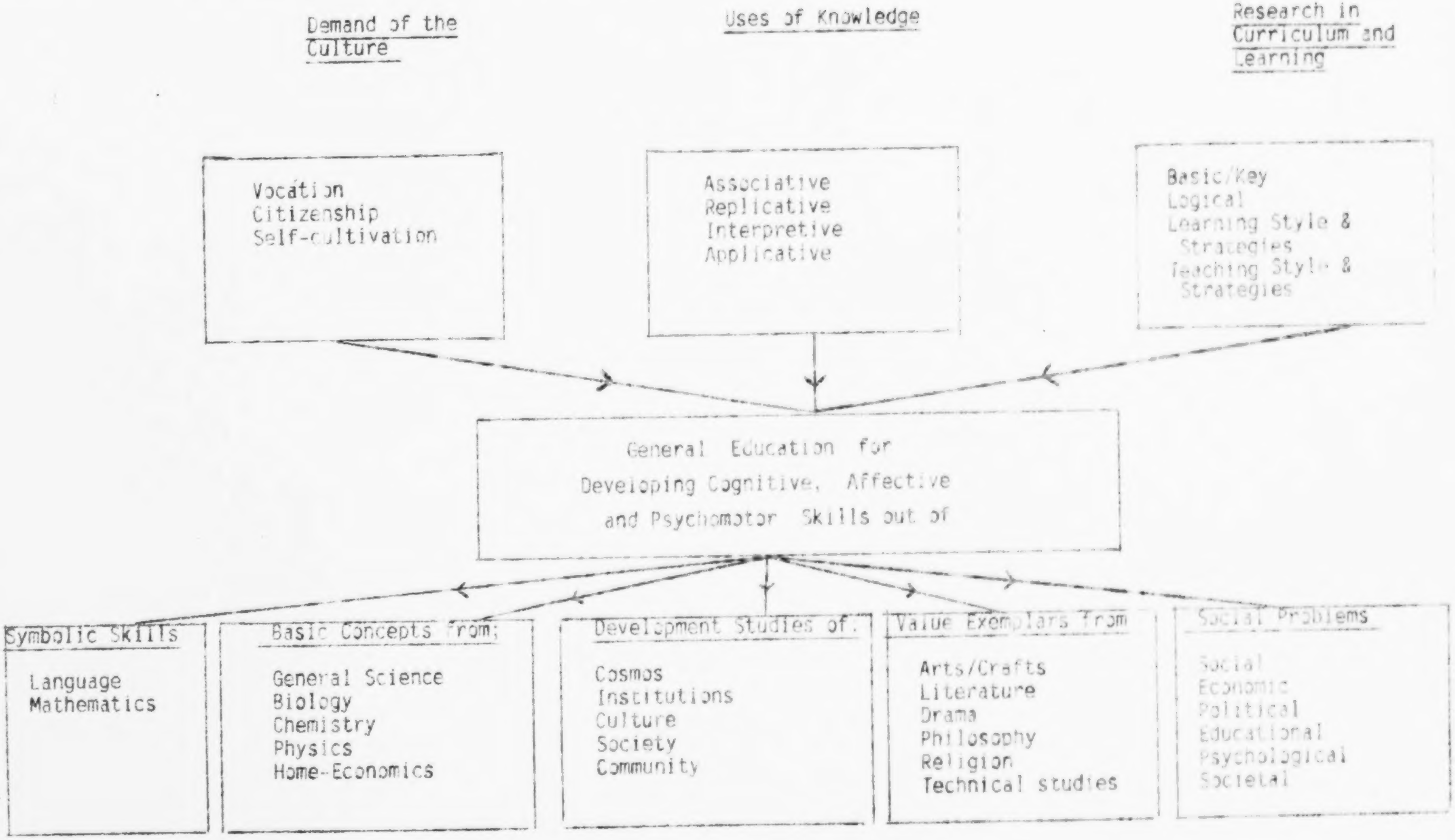
49. Of great importance and significance in curriculum planning and development is the need to solicit national support by having national educational conferences, seminars, workshops, planning meetings and discussion meetings/ groups aimed at promoting a debate on the aims, objectives, goals and purpose of education; the broad contents of curricula; the management of schools; examinations and the training of teachers. Such meetings can produce very useful results in spite of the problems of financing them.

50. Another aspect would be to evolve appropriate methodologies for curriculum planning and development through a common sense approach by establishing local facilities for curriculum planning which should operate in accordance and partnership with the central or national bodies; and through a workable relationship between the school and the community in basic education.

51. More important is the need towards the development of training schemes within the African region rather than outside Africa in a variety of techniques and skills connected with curriculum development and evaluation such as writing textbook skills; textbook production and sitribution, equipment production; and distribution; use of instructional materials and evaluation skills; and the development of educational technology techniques. Indeed there is need to develop skills and facilities within Africa for the production and distribution of curriculum materials.

52. In conclusion, it should be emphasized that curriculum planning and development for formal or non-formal education consists primarily of two elements viz: the content which is characterized by facts, descriptive and evaluation concepts, principles, norms and rules; and the second consists of categories of instruction organized under symbolic studies, basic sciences, developmental and aesthetic studies and social problems. The first of these elements i.e. the demands of culture, the use of knowledge and research in curriculum involving basic concepts and learning styles have great influence on general education; while the second elements greatly influence the development of cognitive, effective and psychomotor skills. These elements are shown diagramatically in Figure [illegible]. Curriculum Planning Development should therefore take serious consideration of these elements.

Figure 2: Curriculum Design in General Education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Symbolic Skills
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CHAPTER 6

Evaluation of an Educational System[1]

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[1] Contribution by Professor Emmanuel Waddimba, Educational Research Bureau, University of Zambia.

EVALUATION OF AN EDUCATIONAL SYSTEM

INTRODUCTION

Regardless of the order, in this paper, evaluation of an educational system is confined to the clusters of or subsets of i) planning, ii) curriculum and instruction, iii) schools inspectorate, iv) administration, management v) evaluation, testing and measurement, vi) contiuing education, and vii) research.

A few highlights of each one of the selected clusters are summarised below for illustration purposes. During this session, participants are expected, through critical thinking, analysis and discussion to make appropriate suggestions for the improvement of effectiveness on each selected cluster. Each discussion group is expected to search for or formulate what are considered to be their priorities on each cluster.

Various essential details about each cluster are beyond the scope of this paper. However, discussion groups are expected as much as possible to leave no stone unturned in their search for solutions. Depending on the nature of date, namely, nominal data, interval data or ratio data, various approaches should be used to evaluate school systems. Quantitative as well as qualitiative methods can be applied. Among them are the descriptive statistical surveys and trends, nonparametric analysis, experimental methods, and other multivariate methods. Whatever methods are used, tested validity should be verified.

1. PLANNING

Evaluation of the planning sector should, among other things, scientifically measure the extent to which:

(a) There is an inbuilt policy to train dependable professional planners who use comprehensive and valid statistics, research and evaluation as the basis of policy decision making.

(b) Educational system is fully responsive to genuine needs of students and society concurrently through appropriate policies, curricula and delivery systems.

(c) There is an effective, coordinated, systematic and continuing planning system within the Ministry of Education and Culture.

(d) Educational planning is guided by the philosophy of education based on the national development goals and objectives.

(e) Planning incorporates multiple approaches concurrently: social demand approach, manpower approach, cost-benefit approach, mathematical models, systems approach, management by objectives approach and socio-political approach.

(f) Planners provide comprehensive data base and also facilitate communication by mediating between conflicting parties.

(g) The planning design incorporates evaluation of the administrative and forecasts of possible weaknesses during the implementation stage.

(h) Planning is both coordinated and semi-decentralised interdepartmentally.

(i) The improved broad data base of all objectives, techniques of data gathering, type of data, data processing and analysis methods comprising socio-political - administrative context of the system instead of narrow statistics. Establish coordinated, cooperative interdepartmental communication and relationships on data needed. Coordinate with research agencies.

(j) Heuristic approaches are used to plan for long range futures.

(k) Research is conducted on the training needs of planners whereby the findings are used to provide necessary expertise including communication, and leadership skills apart from statistical expertise.

(l) Educational trends are used to evaluate school system e.g. goals and objectives versus student performance, curriculum relevance and youth unemployment, population explosion versus equity and quality, perception gap between generations, gap between demand and supply, personnel qualification and performance, leadership and subordinates' performance.

(m) Pupil characteristics, home and school environment, educational process accountability versus outcome. External evaluators are used to evaluate evaluation progression and participation rates.

(n) Policy caters for Universal Primary Education (UPE) as a commitment to basic equality of educational opportunity of all nation's children, more effective education to more people.

(o) Vocational education comprises total systematic change, bias-schools, core curriculum, nonformal practicals.

(p) School factors, nonschool factors affect girls education provision, participation and performance.

(q) Teacher education demand versus supply, trained versus untrained, rate of attrition, shortfalls, student to staff ratios, instructional materials.

(r) National important goals are effectively achieved as quality. Quantity in terms of numbers to be education and knowledge increase to be acquired. Equality in terms of more education to more people regardless of geographical locations or home social status. Efficiency in terms of amount accomplished per unit time and dollar. Domains such as cognitive, affective, psychomotor plus self-cultivation, citizenship and vocational education.

(s) Objectives are the basis of programme design, procedure, implementation, solution devised, solution evaluation. All objectives are identified specifically. If objectives not developed by curriculum developers, evaluators have to do so. Objectives precede development. Stated operationally to reflect learning. Acceptance by extent to which learners commit themselves to achieve objectives.

(t) Achievability and appropriatness. Clarity and hierarchical on three domains.

2. CURRICULUM AND INSTRUCTION

Evaluation of curriculum and instruction can measure the extent to which curriculum:

(i) Goals as long range aims are clarified, and differentiated from objectives as specific immediate and intermediate learner/performer behavioural outcome.

(ii) Goals and objectives are an integral part of the process of curriculum and instructional planning, development and supervision, examinations and evaluation.

(iii) Goals and objectives can accommodate hierarchical cognitive effective and psychomotor domains.

(iv) National development goals (periodic development plans) are clarified, disseminated, national goals of education are clarified and derived from national development goals; grade level and subject area goals and objectives are derived from national development goals and goals of education; goals and objectives are appropriate, relevant to societal and student needs, and are achievable.

(v) Objectives specify the learner/performer, curriculum content, behavioural action verb of performance outcome, minimum performance level acceptable and conditions under which achievement will be measured (Bloom et al., 1956; Krathwol et al., 1964; Mager, 1962; Kryspin & Feld - Hasen, 1974).

(vi) Curriculum decisions are based on evaluation and research findings, whole nature of man including cognitive, affective, psychomotor, aesthetic, spiritual, intellectual, imotional, social, and philosophical (Foshay, 1975).

(vii) Curriculum personnel are trained in history and philosophy of education, psychology of education, sociology of education, subject area structure, supervision, curriculum and instruction, evaluation and research methods.

(viii) Goals and objectives of the Curriculum Development Centre are classified, specified, appropriate and relevant to societal and school system needs; job descriptions are clarified and specified as well as appropriate and relevant; achievable; policies are clarified and disseminated and implemented, organisational structure facilitates achievement of goals and objectives. Curriculum Development Centre cooperate with Ministry of Education and Culture, University, schools, colleges, professional organisations; job descriptions of National Curriculum Council (NCC), Subject Heads clasified and achieved; curriculum research and evaluation capacity of CDC; library, equipment and in-service education.

Extent to which teaching:

(a) Lesson objectives specify pupil and teacher behavioural performance based on syllabus, scheme of work, are in hierarchical cognitive, affective and psychomotor domains; table of specifications and including the essential components of a good objective.

(b) Lesson preparation notes reflect teacher up-to-date reading and research on current theories based on curriculum objectives, inquiry pupil activities, concise and pupil-centred maximum creativity, resourcefulness, lesson development stages, high calibre of professionalism, not slave of a text book, between pass and towards distinction.

(c) Lesson introduction fulfills the role of revision, through pupils' contributions, brisk, readiness, motivation.

(d) Lesson development itemises stages, reflects pupil inquiry activities for optimal self-actualisation according to lesson objectives, reflects application of foundations of education and methods courses, cognitive, affective, psychomotor domains hierarchically, comprehensive treatment to facilitate transfer, correlation of subjects, emphasing objectives.

(e) Questioning incorporates high level objectives, extensive probing to challenge and fire pupils critical thinking, problems solving, using pupils to answer fellow pupils' questions.

(f) Correcting pupils through their own self-criticism, finding one's own mistake and correct it, correcting pupils using their peers.

(g) Teacher's manner reflects pleasant personality, natural warm classroom atmosphere, calm, firm, flexible.

(h) Pre-planned class control, uses various communication media, verbal and nonverbal, appropriate handing of problem-children and individual differences.

(i) Use of pupils' names for various purposes, recognition, attention, reward, facilitating, caution, praise, humour.

(j) Pupil involvement reflects various discovery activities, various methods to cater for individual differences, between pupil interaction, small group activities, art of questioning, attending to whole calss and individual differences, optional utilisation of classroom time.

(k) Supervising pupils' classroom written work to attend to individual differences, quick rounding but effective, keeping individual comments to those concerned but general ones for correcting and diagnostic purposes.

(l) Pupil's interest is aroused and maintained, distributing work and attention, humour, local examples and illustration, dramatising, varging voice, gestures, pace, methods, simplification of subject matter, motivation, relaxed classroom atmosphere.

(m) Use of blackboard is easy, quick often, legible, neat, pupils have access to using it, organised, good layout.

(n) Audio-visual pre-planned in lesson notes, spontaneous, improvisation, teacher-designed, pupils participation to collect, pupils use them, local environment resources legible labels.

(o) Pupil homework pre-planned or arising from lesson incidents, graded difficulty, tailored to objectives, feedback frequency, diagnostic, made interesting, own compositions, challenging, motivates pupils' achievement.

(p) Record of work, cumulative, used for guidance and remedial work.

(q) Pupils exercise books reflect frequency of written work, feedback with comment, discussed with pupil, neat, and inspected by headteacher, pupil makes the corrections.

(r) Schemes of work reflects syllabus, students ability and needs.

(s) Study skills/learning skills/thinking skills for learning, reasoning, and understanding to improve pupil achievement when incorporated into subject areas. Critical thinking skills are:

1. learning to learn by attraction, training, goal setting, cognitive, restructuring and, self evaluation;

2. content thinking by declarative memory understanding basic concept and large organisational patterns of information;

3. basic reasoning skills: storage, retrieval, procedure, and execution.

3. ORGANISATIONAL STRUCTURE

Evlauation of an educational system should include the organisational structure of the delivery system. Various factors are likely to affect patterns how the structure is set up. Usually the degree of centralisation, semi-decentralisation and decentralisation reflects part of planning. In Figures 1 and 2 together with the accompanying key an example of organisation is illustrated. One of the major purposes of the designed organisational structure is effective implementation to achieve goals and objectives. Whether Schools Inspectorate or administration (Curriculum Development Centre (CDC), Examinations Council (ESEC) or University, evaluation should measure the effectiveness of each component or the extent to which the organisational structure is clarified to show relationships. The extent to which job descriptions per unit are effectively done and executed is part of evaluation. Evaluation should measure the extent to which:

(i) Goals and objectives for each unit are clarified, specified, disseminated to avoid duplication and wastage, utilised as the basis for practice, implementation, evaluation.

(ii) Job description for all personnel are comprehensively and appropriately clarified, specified, disseminated, utilised for practice implementation and evaluation.

(iii) Funding corresponds to the magnitude essential for achievement of goals, objectives, job descriptions, needs or problems.

(iv) Personnel and staff development are adequately qualified through pre-service and in-service training plus the necessary experience.

(v) Material resources, physical, scholastic, instructional, recreational are available and are optimally utilized, maintained, replaced.

(vi) Coordination, cooperation, two-way communication in Fig. 2 is effected.

(vii) Professionalism, excellence, and commitment replace mediocrity.

(viii) Innovations are institutionalised, recognised, rewarded through supportive attitudes, clarity of goals and objectives, organisational structures, needs assessment, incentives.

(ix) Special education policy, planning and provision for handicapped, mentally mentally retarded, emotionally distance.

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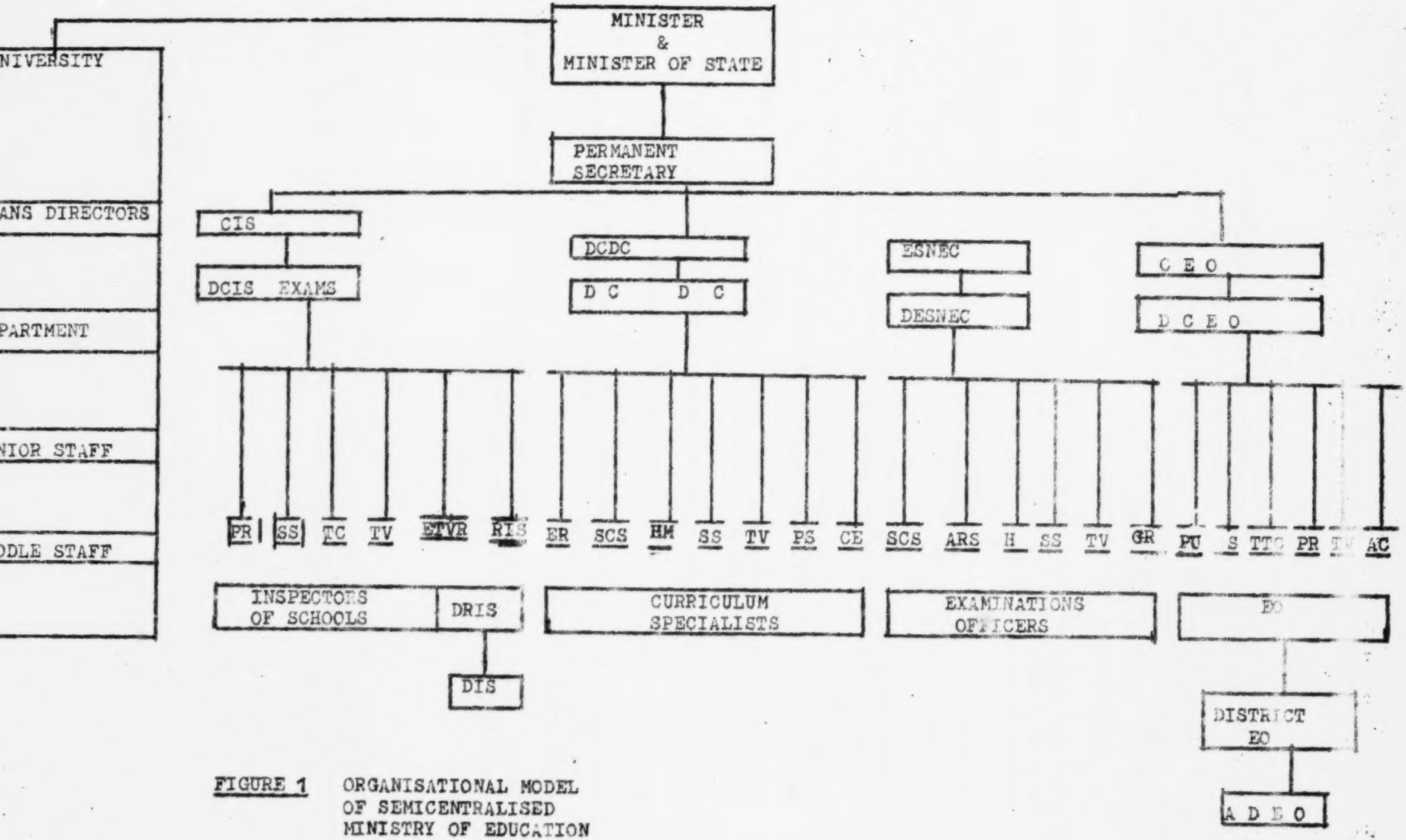
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FIGURE 1 ORGANISATIONAL MODEL OF SEMICENTRALISED MINISTRY OF EDUCATION

KEY: FIGURE 1

- Chief Inspector of Schools (CIS)
  - Deputy Chief Inspector of Schools (DCIS)
  - Senior Inspector of Schools, Primary (PR)
  - Senior Inspector of Schools Secondary (SS)
  - Senior Inspector of Schools TETC (TC)
  - Senior Inspector of Schools Technical & Vocational Education (TV)

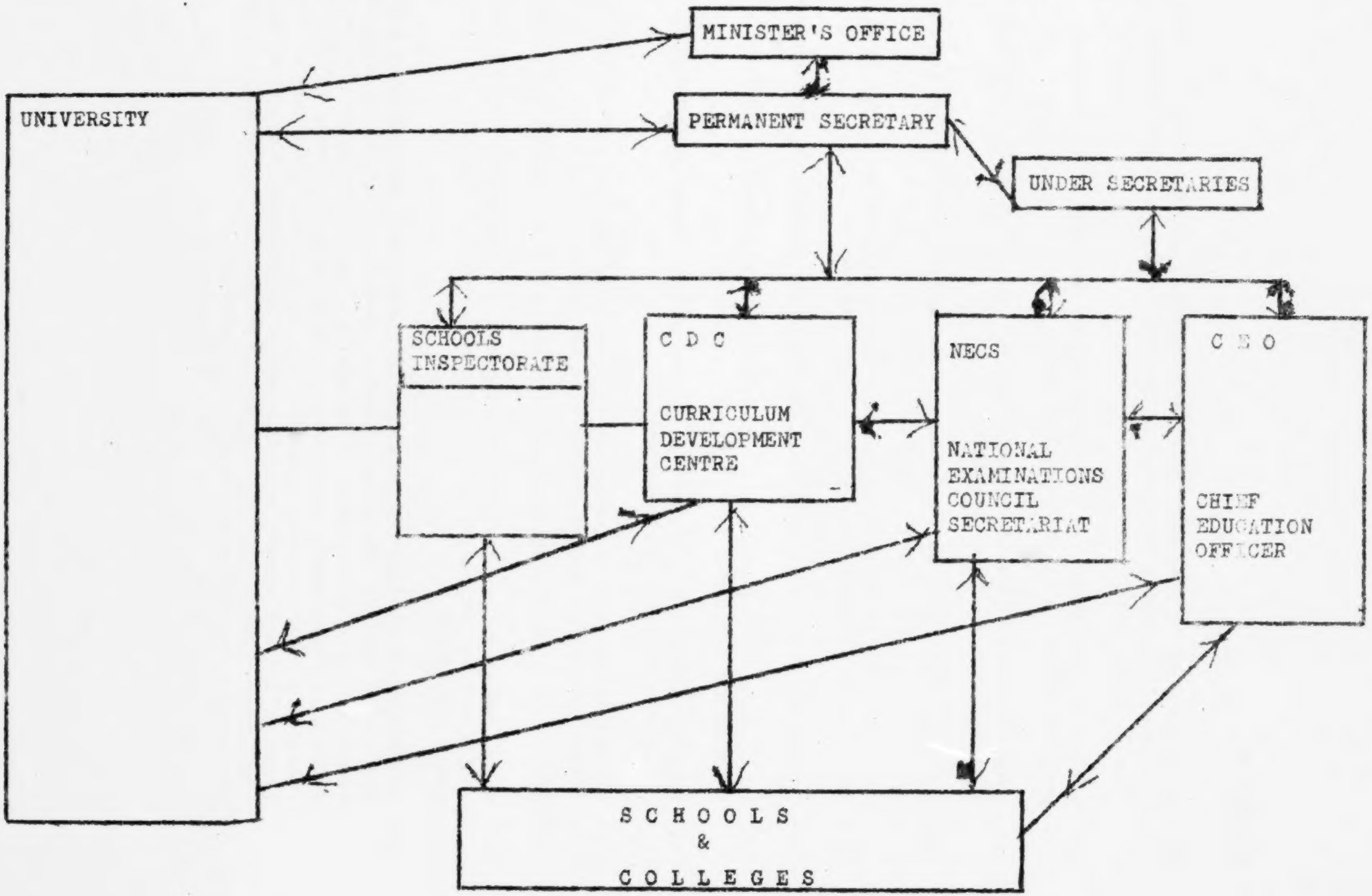
  - Senior Inspector of Schools Educational TV & Radio (ETVR)
  - Regional Inspectors of Schools (RIS)
  - Deputy Regional Inspector of Schools (DRIS)
  - District Inspector of Schools (DIS)

- Director Curriculum Development Centre (DCDC)
  - Deputy Director Curriculum Development Centre (DDCDC)
  - Senior Curriculum Specialist Evaluation and Research (ER)
  - Senior Curriculum Specialist Maths (M)
  - Senior Curriculum Specialist Science (SCS)
  - Senior Curriculum Specialist Humanities (HM)
  - Senior Curriculum Specialist Social Studies (SS)
  - Senior Curriculum Specialist Technical and Vocational Education (TV)
  - Senior Curriculum Specialist Practical Subjects (PS)
  - Senior Curriculum Specialist Continuing Education (CE)

- Executive Secretary National Examinations Council (ESNEC)
  - Deputy Executive Secretary National Examinations Council (DESNEC)
  - Senior Examinations Officer Science (SC)
  - Senior Examinations Officer Maths (M)
  - Senior Examinations Officer Arts (ARS)
  - Senior Examinations Officer Humanities (HM)
  - Senior Examinations Officer Social Studies (SS)
  - Senior Examinations Officer Technical & Vocational (TV)
  - Senior Examinations Officer Evaluation & Research (ER)

- Chief Education Officer (CEO)
  - Deputy Chief Education Officer (DCEO)
  - Senior Education Officer Planning Unity (PU)
  - Senior Education Officer Secondary (S)
  - Senior Education Officer TTC (TTC)
  - Senior Education Officer Primary (PR)
  - Senior Education Officer Technical and Vocational (TV)
  - Chief Accountant (AC)
  - Education Officers (EO)
  - District Education Officer (DEO)
  - Assistant District Education Officer (ADEO)

FIGURE 2: MODEL OF EDUCATIONAL SYSTEM INTERDEPENDABILITY COMMUNICATION FLOW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UNIVERSITY
PERMANENT SECRETARY
UNDER SECRETARIES
SCHOOLS INSPECTORATE
C D C
CURRICULUM DEVELOPMENT CENTRE
NECS
NATIONAL EXAMINATIONS COUNCIL SECRETARIAT
C E O
CHIEF EDUCATION OFFICER
S C H O O L S & C O L L E G E S

4. EVALUATION

(a) Evaluation is defined as a scientific process for delineating, obtaining, and providing useful information for judging decision alternatives (Stufflebeam, 1969)

(b) Formative evaluation is conducted for improvement of programmes, projects while still in formative stage.

(c) Summative evaluation is conducted at the end of unit or project for judgement and feedback on output versus objectives.

(d) Internal evaluation by the school is conducted according to theories of evaluation, testing and measurement.

(e) External evaluation is conducted and controlled by evaluator from outside the school, programme, project, system component.

(f) Context evaluation is conducted for planning decisions, environment.

(g) Input evaluation is conducted on resources, strategies, desigins, programming decisions.

(h) Process evaluation is conducted on procedures, methods, operations, unexpected finding, implementation.

(i) Product evaluation is conducted at the end of project, programme, unit, to judge its worth, outcome, standards, feedback.

(j) Evaluation is institutionalised, inbuilt for every aspect of education.

(k) Needs assessment is institutionalised as prerequisite to innovations, modifications, change, pre-service and in-service training in conducting a needs assessment.

(l) Comprehensive evaluation programme is planned and implemented: goals and objectives reflect effective planning, methods cater for maximum learning, extent of pupil achievement of objectives, structure/type of data and sources of data, needs assessment precedes modifications, calibre of continuous assessment comprehensive/validity, proportions for readiness in order to proceed, learner growth and programme effectiveness, various evlauation/ assessment methods are used, affective evaluation encompasses learner attitudes/interest/habits/personality traits.

(m) Classroom testing includes essay-types: (a) short-answer restriting response to hals page, (b) discussion, 2-3 pages.

(n) Classroom testing includes objective-type a) short answer with single word, symbol or formula, phrase or multiple words, b) multiple choice, c) matching, d) criterion referenced test for describing status of an individual.

(o) Teacher-made tests of high calibre to determine (1) pupils mastery of certain skills, attitudes and knowledge, (2) measure growth overtime, (3) rank pupil's achievement on each objective, (4) diagonise pupil's learning difficulties, (5) evaluate teacher instructional performance, (6) determine effectiveness of curriculum (7) promote good study habits, (8) motivate students to learn.

(p) Checklist items specify curriculum content, specify list of major curriculum objectives, state each objective in student behavioural terms, with table of specifications, determine type of item format.

(q) Test items relate to instructional objectives.

(r) Conduct test item difficulty of achievement tests to find difficulty level $D = \frac{R}{T} . 100$, discrimination power $\frac{Ru - Ru}{Nu \text{ or } Nt}$ content validity.

(s) Achievement tests conduct content validity, construct validity.

(t) System conducts attitudes tests, interest tests, aptitude tests.

(u) Evaluation of evaluation comprises 1) internal validity, measure what it is supposed to measure, 2) external validity, extent results are generalisable, 3) reliability, accurate and consistent data collected, 4) objectivity, replicability of procedure of data collection, data analysis, interpretation, 5) relevance, relationship of data and objectives, 6) importance, priorities placed on information collected, 7) scope, comprehensiveness of design, representative samples, 8) credibility, does evaluator command due respect by qualification and professionally, 9) timeliness, reports available when needed, 10) pervasiveness, how widely results of evaluation study are to be utilized, 11) efficiency, what are the cost-benefits of the evaluation (Worthen & Sanders, 1973: 218).

5. CONTINUING EDUCATION

Evaluation of continuing education will measure the extent to which:

(i) Every aspect of continuing education just like the mentioned aspects of each cluster above are evaluated.

(ii) Continuing education improves people's socio-politico-economic development to participate in societal progress.

(iii) People's basic needs are achieved or met.

(iv) Illiteracy is reduced.

(v) Population education reducing infant mortality, malnutrition.

(vi) Provision is increased and improved.

(vii) Continuing educationists are trained.

(viii) It contributes toward reducing unemployment.

(ix) It curbs rural to urban migration.

(x) It is an integral part of the educational system as a matter of policy.

(xi) Its impact improves rural development.

(xii) Workers' education increased and improved.

(xiii) Nonformal education plays a remedial and compensatory role for constraints on formal education.

(xiv) Functional literacy combines literacy skills and community economic activity.

(xv) Nationwide compaign is a factor for development.

(xvi) Multimedia methodology is used.

(xvii) National political will and commitment to continuining education.

6. RESEARCH

Evaluation of the research cluster should be measured according to the extent of:

(a) Its policy and organisation to meet stated goals and objectives.

(b) The format used corresponds to scientific research procedure.

(c) Scientific research on policy issues.

(d) High calibre research on various aspects of curriculum and instruction.

(e) Calibre of research on pre-service and in-service teacher education

(f) Administration, management, supervision, leadership is researched.

(g) High calibre research conducted on issues and aspects of the schools Inspectorate.

(h) The examinations system and evaluation is researched.

(i) Learning and teaching, programmes and projects are researched.

(j) Various statistical tests are used according to type of data and nature of the problem being researched.

(k) Financial commitment to research, resources, cost-effectiveness, productivity, demand versus supply.

(l) Quality and quantity of research publications.

(m) Infrastructure, management, administration, leadership in research agencies.

(n) Quality of measurement which measurement domain is defined:

    i. Specify the problem and its variables to be measured.

    ii. Review of indicators defined.

    iii. Specify items included in domain.

    iv. Define domain, score, mean score of all observed variables.

    v. Define factors of domain: entity to be measured, content, formal, observer, situational.

    vi. Define domain by list of items, rules for inclusion or exclusion, spiral the use of listings and rules.

    vii. Summarise concept of domain of items or conditions, diverse ways items or conditions vary, precise and complete specifications.

7. CONCLUSION AND GROUP ASSIGNMENTS

Although evaluation is a complex scientific process it is an essential part of education. Of necessity, every aspect of an educational system should be evaluated. Once evaluation is institutionalized, evaluators need professional training. Pre-service as well as in-service teacher education should include evaluation.

This study dealt with how to evaluate the planning, curriculum and instruction, Schools Inspectorate, administration/management, evaluation, continuing education, and research. Evaluation conducted should include formative, summative, context, input, process, product, continuous as well as final examination. A comprehensive public school evaluation programme should be established. Validity, reliability and item analysis are needed.

Group one is therefore assigned to discuss and write a comprehensive priority order list of shortcomings in planning and solutions. Secondly, write down 1) what values should public school education explore? 2) how to solve the problem of school leavers. 3) how should public schools be better financed? 4) what is the role of schools in society? Thirdly discuss and write the priority order shortcomings in curriculum and instruction which should be improved. write the solutions per shortcomings.

Another group should discuss and write priority list of shortcomings which need improvement in schools inspectorate, administration/management. Write the value for studying the philosophy of education. Discuss how curriculum should be organized. Discuss the value of instructional materials. Who should control public education? What are the rights and responsibilities in public shools? How should public education be organized and administered?

A third group should discuss and write priority order list of shortcomings in evaluation, continuing education, and research. What responsibility do public school have to reduce crime. Write a list of top ten research needed in education.

CHAPTER 7

TEACHER EDUCATION

Teacher Education

I. Introduction

Both at the levels of theory and practice, teacher education is characterized by confusion, effervescent hopes, pendent fears, wishful thinking and increasing pessimism. Indeed education per se has never had an easy time. The classist feels that real education entails cultivation of the mind while the vocationists stresses the importance of job-oriented instruction, and the pragmatist tries to reconcile these views but with little success. These differing opinions often end up confusing teachers.

Critics argue that teaching is a [illegible] of semi-profession, resting on experience and apprenticeship. They continue to say that teachers cannot be trusted with the responsibility for educational policies in curriculum, discipline, moral values or promotion of high standards. Nor can they be trusted with professional controls such as entry requirements or selection of pupils, or judgement of one another's competence; nor can they be trusted in the appointment of another teacher; nor can they be trusted to have an independent and cohesive professional organization. No, they argue, teachers cannot be trusted, except in the classroom with the children. Yet anyone who has ever thought knows that teaching is a demanding task which calls for sacrifice and commitment to a profession.

Not everyone who has a voice and is audible can teach, because as far as is known teaching is much more than presenting ideas and information. Teaching therefore, includes, among other things, helping pupils to learn by means of the probing, discovering, analyzing and maximizing activities to ensure the development of right attitudes, values and the more straightforward tasks of skills development. These tasks cannot be performed by non-professionals un-committed to the cause of developing and guiding individuals and to the professional ethics of the trade. Teaching it must be emphasized is to try help someone learn something; or more formally to help someone acquire or change some behaviour, i.e. some skill, attitude knowledge, ideas or appreciation. Teaching is therefore an art and learning a science. We can thus talk about the art of teaching and the science of learning.

Therefore, to improve learning in schools, teacher education must proceed both toward incremental reform through strong disciplinary training and professional preparation, continued retraining in teacher institutions and centres; and through comprehensive reform through systematic enquiry into teaching and learning and through a network of devoted teachers and scholars who can create the conditions for fundamental change in the education of children. It has to be emphasized, however, that the forces demanding change in education are basically four; the students, parents, teachers, and society. Parents and students usually direct their protests/attack to the schools rather than the department or ministry of education. Society directs its protests to the educational system in the custody of the Ministry of Education for failing to equip students with the necessary skills and knowledge and to prepare them for a useful and productive role in society. Teachers deplore their lack of preparation for the problems that confront them especially in the cities and look to the administrators for new and helpful measures to ease their problems.

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If training of teachers is to be essentially a mere apprenticeship in specialized forms of behaviour, i.e. training in the form of teaching skills, it may not be the most efficient way of achieving the objectives which have been set. In professional life such as teaching, intelligent training assumes intellectual training, the value of which cannot be underestimated. The ultimate goal and objectives of education and economic considerations directly affect teacher training. Therefore if education is a means rather than an end to development, teacher training institutions should avoid producing unthinking and stereotyped teachers who become prove to learning of abstract notions by rote and to heavy dependence on purely book learning. On the contrary training institutions should produce teachers who are capable of guiding pupils/students towards adulthood by making them independent thinkers and capable of finding solutions to problems on theor own. It must be emphasized that in Africa, education still remains "a labour intensive industry in a continent which requires labour intensive industries and the knowledge and managerial talents of the teacher and headmaster will remain the crucial skills of its labourers".[1/]

II. The Objectives of Teacher Education

In examining the objectives of teacher education, it is necessary to take into account the national policy on the development of education in the country. Such national policies on education may include:

(i) The attainment of universal basic education for the majority of the population to ensure that each and everyone develops the necessary competencies for personal growth and self-fulfillment either through formal or non-formal education;

(ii) Equip the majority of the population with necessary occupational, technical and managerial skills and knowledge for effective participation in national development;

(iii) Pay greater attention to an education that generates scientific thinking, problem solving, technical skills and attitudes and linking productive activities with learning, and the practical application of knowledge and skills to the income generating activities;

(iv) To encourage programmes and activities that foster cultural values and right attitudes to work in rural and urabn areas and self-employment;

(v) Provide educational opportunities to all shades of society through formal and non-formal education programmes in literacy, numerary, basic knowledge and skills in agriculture. health, community work, business, education social services, government and enterpreneurship.

In pursuance of these national education policies, the objectives of teacher education for a country may be stated as follows:

1/ John W. Hanson Enhancing the contribution of formal Education in Africa p.17.

(a) to introduce student teachers (trainees) to the study of education as a basic social institution and to the profession of teaching including aspects of ethical behaviour, self-control and discipline of the profession;

(b) help prospective teachers develop competence and sophistication in one or more teaching fields and to develop proficiency in the teaching process through theory and practice;

(c) develop an understanding of teaching and learning processes as they affect the selection, organization, presentation and evaluation of curriculum materials and resources for various age levels and ability groups to which students will be exposed;

(d) through research, observation and direct experience, develop in the trainees an understanding of growth and development in pupils/student, youths and adults;

(e) assist each student in developing a workable philosophy and an appreciation of the ethical responsibilities of a professional educator in a developing country; and

(f) provide in the liberal arts and sciences knowledge, understanding skills and abilities which will make them to be good citizens of a country.

III. Principles Governing Teacher Training

There are some educationist who advocate that the educational requirements of rural areas are different from those of urban areas and as such the training of teachers for those going to urban areas should also be different. While this sounds plausible, it is likely to create resentment in many countries because the rural teachers will feel that they are receiving an inferior training to that of urban teachers; and that such training is likely to create double standards in the country's educational system.

In many African countries, the majority of the population lives in rural areas. It is also true that education in many of those countries if failing to adapt to social environment by helping school leavers to remain in rural areas rather than trek to urban areas in search of work. One may question whether the trek to the cities is partly due to the failure by teachers to equip school leavers with the necessary knowledge and skills for a useful life in rural areas. The teachers should not bear this blame on their own as there are other factors which contribute to this failure and to the drift to urban areas.

Given that the ultimate aim of rural education should be to increase productivity and contribute to the economic and social development of rural areas, it is emphasized that the functions of the rural school should be:

i. to equip the rural child for integration into the rural - agricultural society and economy; and

ii. to equip that same pupil/student with knowledge, skills and attitudes for full integration into the national society and economy for a full and productive life.

With such functions of the school, primary or secondary teachers have a double educational responsibility;

a. educating children as youths on the threshold of an open school system and teaching them the basic notions which will enable them to interpret the spcial setting in which they live - reading, writing, numeracy and understanding and

b. helping adults by using a different pedagogical approach which does not only draw on academic exercises but also draws on the daily experience of adults, and for immediate application in their daily activities.

To fulfil this dual responsibility of the teacher, teacher training attempts both by the spirit in which it is undertaken, and by the curricula, methods and techniques it uses, to make the primary and secondary school teacher more of a practical than a theoretical worker; more concerned with rousing interest and motivating the pupil/student for further studies than equipping him/her with practical knowledge and skills for a productive life in rural areas; and at imbuing the young with moral principles for a useful and civic roles in their society.

In many African countries, the training of teachers for both rural and urban areas is done in one and the same institution. There is no special training for rural teachers, even though the demands of rural areas are quite different from those of urban areas. Indeed teacher education in Africa is one general training; intellectual cultural and practical; intended to develop the trainee's ability to analyze and understand a given situation and has to deal with it. This general training is a specialized training in as how as it is an apprenticeships in the professionalization of teaching. Through this specialized training student teachers are prepared to assume one of the vital roles in society i.e. the education of the young in preparation for tomorrow's adult roles and for national development.

IV. Initial Preparation of Teachers

In many countries, the teacher education programme tries to help individuals become prepared and skilful teachers by offering them:

1. General Education covering academic courses in the arts and sciences or other fields to strengthen the trainees' academic background of the subject. Such general education may cover a number of subjects irrespective of the students field of specialization.

2. Subject Matter Preparation

The trainee takes a sequence of courses aimed at providing depth in the trainee's teaching subject or field of specialization e.g. mathematics or English. The trainee is expected to pass or do well in this subject of specialization at the end of the training programme to ensure that he teaches that subject well.

3. Professional Sequence

The trainee takes foundation courses in education covering such areas as educational philosophy; sociology of education; educational psychology; history of education; comparative education; educational administration etc. The courses in these particular disciplines attempt to distil the content from them which relates to the educational process. These courses provide a firm command of a current knowledge base in teaching and learning i.e. the foundations of education as drawn from philosophy and behavioural sciences, the nature of the learner and his development, and the methods of instruction appropriate to his special area of teaching.

Through these courses, the trainee acquires the following teaching skills:

i. diagnosing student needs and learning difficulties;

ii. devising learning objectives and programmes tailored to individual student needs;

iii. asking types of questions which require different type of thought process as a response;

iv. effectively rewarding certain kind of student behaviour;
v. effective use of audio-visual and institutional aids;

vi. evaluating performance and making the results known to the students;

vii. effective use of a variety of methods; and

vii. being able to instruct individuals, small and large groups effectively.

The sequence courses must be seen as parts of the same item of developing a conceptually based programme of teacher preparation i.e. teacher education.

4. Clinical Training in Teaching

This is commonly known as teaching practice and provides the trainee with the face-to-face contact with students. It provides the practical application of what the student has learnt in training from the theoretical point of view.

Teacher education programmes however, have insufficient impact on prospective teachers for a number of reasons:

a. what is taught in college is not immediately transferred to classroom practice;

b. there is much that can be taught or cannot be taught well because of the place in which teacher education is conducted;

c. is too much expected from students during teaching practice although the time allocated for it is usually short, six weeks, two months or for a term.

Added to these complexities are such problems as:

i. The inadequacy of supervision by subject specialists during teaching practice: Many students are usually supervized by non-subject specialists;

ii. The quality of class teachers or mentors at school where students are placed varies greatly from one school to another so that very little help is given to the student teacher. Some of the class teachers will be tacking in experience themselves, perhaps in their second or third year of teaching and hence trying to find their way in the real world of teaching; others may be untrained teachers; and there are those who take teaching practice as a time to relax and take a break when their classes are taken care of by student teachers; and

iii. Teaching practice involves assessment and hence the fear students have of supervisors. Many students regard teaching practice as a survival task and not a clinical experience. Educationists continue to ignore this fact that teacher education is an applied field and fundamentally different from the study of philosophy and mathematics so that field experience is of vital importance to the prospective teacher. Certainly college tutors teach about teaching, but give the prospective teacher little opportunity to practice what he is learning about teaching. Tutors do not seem to teach "teaching".

Therefore what is needed in a teacher education programme is professional laboratory experience i.e. a planned set of experiences which expose the trainee to the professional problems of teaching and the issues confronting teachers in the classroom every day of their teaching life; and those experiences which aid the prospective teachers in the acquisition of teaching skills and strategies for classroom insturctions.

The clinical experience might include peer teaching, observation, teaching practice etc. and it would be hoped that this field experience would increase academic and professional knowledge, changes in classroom behaviour; and modification of attitudes towards children, teaching and teacher education.

It must be pointed out that the teaching ability of an individual is greatly improved by training offered through method courses and through teaching practice even though teaching practice assessment is very much dependent on the subjective impressions of the individual supervisors. Many teacher training institutions insist that failure in teaching practice leads to failure in the course since anyone who fails the practical side of a job cannot become proficient in that job. In the case of teaching, it is argued that any trainee who fails in teaching practice should not be allowed to teach.

V. In-service Training

A single teacher training course, no matter how good and how long, is not sufficient to keep a teacher intellectually alive in a world of increasing changes in the field of education. Curriculum changes, new knowledge and modern teaching technologies require that serving teachers must be given continuing opportunities for learning and in-service-training. It is not the fault of serving teachers that they cannot fully implement the new curricula or rise to the challenges posed by the rapidly evolving national education system because of the lack of further training in new methods and technologies since their graduation from college years ago.

If education is a life-long and continuing process, it must include the teachers' own education by being given in-service-training during the course of their teaching life to up-date not only their knowledge in the light of current researches and findings but also the up-date their teaching methods. Emphasis should be placed on the fact that in-service-teacher-training must be regarded as a continuing process of teacher education started during the initial teacher training at college and should therefore be considered as a necessary concomitant in the professionalization of teachers; for without it, teachers can never become truly professionals in a field which is ever changing.

VI. Teacher Training and Further Training

The training, further training and retraining of teachers should comprise of:

a. general training including methodical knowledge; the power of analysis and means of expressing. Each teacher should be responsible for his own cultural enlightment;

b. pedagogical training based on a practical and well balanced approach to conducting a class;

c. civic social and economic institution, thus stimulating a desire to take part in national development, and play an active role in national affairs.

Teacher education should provide for the training of prospective teachers in specialized educational institutions; secondly it should provide for refresher courses for serving teachers so that they are able to adapt new circumstances, teach new syllabuses and implement new curricula without necessarily changing their status; and thirdly provide further training for serving teachers to enable them up-grade their professional standards thereby change their status e.g. the Grade II teacher being up-graded to grade I teacher and the diploma teacher taking a course that changes him/her into a graduate teacher.

It must be pointed out, however, that even if all these types of training were done, the drain of trained teachers to other jobs and sectors of the economy, cannot be easily halted unless prospects for promotion within the teaching profession are made apparent and conditions of service are equally competitive with other jobs and occupations. It has been said that a good teacher does not retire in a classroom but in an office either through promotion or by defection to other lucrative jobs. However, there is always an exception to the rule.

VII. The Etymology of Teaching

Behaviour is sometimes attributed to maturation, although development does not necessarily account for many features of behaviour which are obviously derived from environment. In terms of teaching however, a teacher "cannot really teach but only help students learn.[1] Therefore as a first principle of the etymology of teaching "to teach is to nourish or cultivate the growing child or to give him intellectual exercise, or to train him in the horticultural sense of directing or guiding his growth.[1]

A second principle of the etymology of teaching is that of acquisition in which the teacher plays the role of transmitter of knowledge to the learner. Teaching is a form of alchemical wetting: the student is imbued with a lot of learning; ideas are infused, wisdom is installed. The teacher propagates knowledge; he engenders thoughts; he implants the germs of ideas; and the student conceives. What is transmitted by the teacher must be stored by the learner. What has been stored by the learner must be nut into use through practice for without practice, the stored knowledge, ideas etc. may be allowed to go to waste.

A third principle is that of construction by which a teacher informs the student/learner in the sense that his behaviour is given form or shape. Therefore to teach is to edify in the sense of build by which a teacher builds precursors such as knowledge, habits or interests attitudes etc.

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[1] B.T. Seinner - The Technology of Teaching, Meredith Corporation, 1968 p.1

It must be emphasized that the three variables compose the so-called contingencies of reinforcement under which learning takes place viz:

i. An occasion upon which behaviour occurs;

ii. The consequence of behaviour.

Teaching is thus the arrangement of contingencies of reinforcement. A student left to himself in a given environment will learn something, but he will not have been taught. A person will learn from experience but he will not have been taught. Teaching is the expediting of learning because a person who is taught learns more quickly than one who is not. Teaching should manifest itself into some form of behaviour which would not have otherwise arisen.

VIII. Three Learning Theories

Three classical theories are essential to the four-mentioned contingencies of reinforcement:

i. learning by doing which emphasizes the response of the learner;

ii. learning from experience which emphasizes the occasion upon which the response occurs; and

iii. learning by train and error with emphasis on consequences.

According to the theory of learning by doing, a learner must be actively involved in what he/she is learning both verbally and practically. Teaching must provide for a lot of exercises, drill, and repetition, for unless this is done, maturation and change of behaviour may not occur.

As regards learning from experience a learner must be brought into contact with the world and experience things by doing. Experience represents stimulus or learner input while doing represents the response or output.

Finally it must be emphasized that students learn by trial and error through reward and punishment. A student should not be afraid of making mistakes because one learns by doing and in doing things one is likely to make mistakes. A lot of learning takes place through trial and error.

IX. Teaching

Earlier it was pointed out that teaching involves helping someone to learn something. More formally, teaching means to help someone acquire or change some behaviour; that is, some skill, attitude, ideas, knowledge, or appreciation.

It was pointed out that teaching is much more that presenting information or even presenting ideas; because it includes among other things, guiding someone to learn by means of the probing, discovering and analyzing and examining activities which help a person to develop skills attitudes and values, and the behaviour of the learner.

In fact while the technology of teaching is more concerned with the behaviour of the student there are other factors in the world of education which affect learning. It is not enough to understand those who learn but also those:

(a) who teach (b) who engage in educational research and development (c) who administer schools, colleges and institutions; (d) who make policy and (e) who support education.

Teachers, to start with are, always blamed when new educational policies, methods of teaching, administration fail to improve education. If a child who attends school behaves badly at home or in the village, it is because teachers have not taught him how to behave well. The schools and their teachers must be to blame even though teachers are in contact with learners for no more than a quarter of the day i.e. six out of twenty four hours.

Teachers are accused of being incompetent, or not good enough for our schools either because they are not properly trained, untrained, inexperienced or simply because they are second best. Students may learn something without actually being taught by a teacher, but this does not mean that we do not need teachers. Often teachers do a lot to awaken the interest of the passive student to learn something. It must be emphasized that a teacher is a specialist in human behaviour whcse assignment is to bring about extraordinarily complex material.

Through a technology of teaching, a teacher is able to clarify the variables he is manipulating as well as their effects. A technology of teaching improves the role of the teacher as a human being. It provides capital equipment which gives him some of the time he needs to be human. It gives him time to take an interest in his students, to advise and counsel them. A technology of teaching also permits a teacher to teach more than he knows; that is why in the performing arts and sports a teacher may teach what he himself cannot do; although others prefer to call such action as coaching rather than teaching. However, emphasis must be made of the fact that a technology of teaching helps most by increasing the teacher's productivity. It simply permits him to teach more - more of a given subject, in more subjects.

A second major aspect one may wish to consider is that of administration. Administering a school or college often seems far removed from teaching, but a system of administration, no matter how complex, has only one object; to make sure that teaching occurs under the most favourable conditions. A given method of instruction determines such administrative details as the nature of space in which instructions occur, textbooks, equipment, apparatus etc., as well as the kind of people who teach, how they are trained, the number of students they should teach, the salary they are to be paid and for how long they have to work a day, week/year.

Administrative instructions to schools and teachers are issued on curriculum, syllabus, examination, student and teacher behaviour and on many other issues. All these have their effects on learning and teaching, and as far as it is known administration can seriously hamper learning.

A third element in teaching is support and policy. People support education by actually teaching, by organizing educational systems, by building and equipping schools and by inducing others to do all this or pay to have it done. Support almost determines policy - the same people specify who is to be taught, how well they are to be taught for how long and how much is to be taught. Educational policy never recommends bad teaching, but it can be the cause of poor teaching and unsatisfactory learning on the part of student.

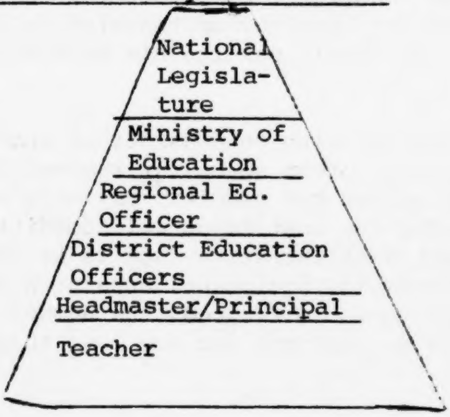
X. Teacher Authority

Many nations in Africa have not entrusted teachers with the responsibility for educational policies, curriculum or school supervision. Arguments have been heard that teachers are professionals, others say they are semi-professionals and others would say that they are a group of self-centred professionals who are not treated by many citizens, legislation, board members and administrators as professionals.

Decisions concerning the governance of teaching as a profession are invariably made by higher authority/officials, administrators, normally without seeking the teachers opinion; e.g. teacher institutions, recruitment type of training the type of students to be taught, the subjects offered, time allocated to each subject, and the selection of pupils/students are often done without reference to teachers or their teaching association. Textbooks are often prescribed for them, they cannot change them. Methods of reporting student progress or assessment methods are all prescribed for him to implement.

Teachers lack authority partly because of the he hierarchical authority pattern which exists in many educational set-up and because of bureaucracy. A bureaucratic structure entails a vertical form of authority with the teacher at the bottom rung of that hierarchy as in Table 1.

Table 1: Formal Hierarchical Authority in Education



In other professions, this power pyramid is horizontal rather than vertical. There are several factors which limit the authority in teachers. Among such factors are:

i. The teachers inability to measure performance and results without being questioned;

ii. Distrust of teacher motivation;

iii. Lack of assurance by administrators that their interests will be preserved;

iv. imbalance between authority and expected returns. The teacher is responsible for the progress of his pupils, but he has little or no authority to control environmental factors;

v. the public's view of the critical nature of education and how responsive it is to national and sociatal needs;

vi. teachers authority is lessened because their actions/decisions are subject to approval by the national or regional ministry of education, the community or the citizenry.

It should be emphasized that a teacher has many handicaps in making decisions in a classroom because many of those decisions are already made for him before he enters the classroom. Rigid rules, instructions and the popular teachers guide often restrict his rroom for manuvour and independent decisions.

Teacher's authority will become more effective if the teachers understand the characteristics of what constitutes a profession and then work assiduously to move in that directon.

XI. Professionalization of Teaching

The words, profession, professional, professionalism and professionalization are relatively new to many teachers. It is therefore necessary to define them in a precise manner.

(a) Profession

An ideal type of occupational organization which does not exist in reality, but which provides model of the form of occupational organization which usually emerges when any occupational group becomes completely professionalized.[1]

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[1] Donald Myers - Teacher Power - Professionalization and Collective Bargaining, SUNY, Albany 1973 pp.19-20.

(b) Professionalization

The dynamic process whereby many occupations can be observed to change certain crucial characteristics in the direction of a profession, even tyough some of these may not move very far in this direction. It follows that these crucial characteristics constitute specifiable criteria of professionalization.[1/]

(c) Professionalism

An ideology and associated activities which can be found in many and diverse occupational groups where members aspire to professional status. An expressed ideology of professionalism may be a necessary constituent of professionalization, but professionalism is not a sufficient cause for the entire professional process. Profesionalism is indeed an ideology which induces members of an occupation to strive to become professionals by adhering to certain rules, code of conduct; professional ethics and pursuing and maintaining certain standards of the profession.

(d) Professional group

Association of colleagues in an occupational context where members have to observe relatively high degree of professionalization.

(e) Professional

Those who are considered by their colleagues to be members of professional groups or associations.

Given these definitions, some of the characteristics of profession therefore are:

1. Knowledge based upon scientific theory i.e. skills which laymen do not possess. Practice is based on some branch of knowledge to which the professionals are privy by virtue of long study and by initiation and apprenticeship under masters already members of the profession. Occupations that are accepted as professions have a scientific body of knowledge, professional schools that require several years of attendance to learn this body of knowledge, and an internship or apprenticeship programme to put the body of knowledge into practice.

2. Service orientation

A profession must have a service orientation towards its clients: professional decisions are not primarily based on material needs of the profession, but on the perceived needs of the client. A professional's allegiance is to the client. Service orientation of a profession is expressed in its code of ethics which identifies the relationship of professionals to the public, to peers, and to clients.

(3) Function

No occupation can become very professionalized unless it has a unique function to perform in society. Function concerns what the occupation seeks to accomplish for its clients and for society. The function of a profession must be clear to ensure that the right courses are given for interns or trainees, how long the training programme will take.

(4) Standards of Education and Training

Persons within the profession do determine the standards of education and training necessary to ensure the attainment of knowledge in the field of the profession. Hence engineers, lawyers and doctors prescribe the kind of training required for anyone to be certified as a professional in those fields.

(5) Long Adult Socialization Period

The student professional goes through a more far-reaching adult socialization experience than the learner in other occupations. During this long training period, the student professional learns the norms of the profession and has to undergo a practical element as part of the professionalization process.

(6) Licensure

The education and training of a professional lead to a licence or certificate which is issued in recognition of a person's competence to perform in the profession. The licence is not a gurantee of competence but that is its intent. In education, certification has been used in the place of a licence. The two (licence and certification) are similar but not identical. Licensure is usuall carried out with the collaboration of the professions or associations; Whereas in teaching, teacher certification is administered by the Ministry of Education with or without the consultation of the teaching association or national board.

(7) Licensing and Admission Boards

These are manned by the members of the profession because non-members would not properly determine the requirements necessary for admission or expulsion of a professional. In education laymen would not be in a position to determine the methods, courses, learning theories, child psychology etc. Knowledge in these fields is acquired over a period of time, and therefore only a professional in the field would be in a position to decide licensing and admission procedures.

(8) Legislation

Most legislation concerned with a profession is shaped by that profession.

(9) Income, Power, Prestige, Banking and Students

The occupation gains in income power, and prestige ranking and often it demands a higher caliber students. Teachers on the other hand are not highly paid, lack power and the training institutions often get second best students after other professions have had their share. Strange statements like these have been hears: "you only go to a teacher training college when all doors leading to other professions have been closed". This is not true as some of the best brains in some countries have been teachers.

(10) Long Evaluation and Control

The practioner is relatively free of long evaluation and control i.e. he has the right or power of autonomy, or undertaken without outside control. A Lawyer, for instance resists strongly a review of his decision. Teachers have autonomy in what they do to help students learn.

(11) Norms

The norms of practice enforced by the profession are more stringent than legal controls.

(12) Identification and Application with the profession

Members are more strongly identified and affiliated with the profession than are members of other occupations with theirs. There is a total career commitment to the profession irrespective of monetary benefits.

(13) Lifelong Occupation

The profession is more likely to be a terminal occupation. Members usually do not want to leave the profession but continue to work in that profession for the rest of their lives.

On the basis of the foregoing characteristics, teachers may not be called professionals particularly in respect of function; licensing and admission boards; income, power and prestige ranking; and freedom from long evaluation and control. But teachers do not need to satisfy all these characteristics because it is more realistic to recognize that teaching profession has characteristics of its own which dictate for teachers a different relationship to society. Somehow we should not use wrong yardsticks to determin professionalism in reaching or education.

Table 2 gives the contrasts between the education profession and other professions. In spite of this distinction, we can still conclude that teaching is a profession which calls for specialized knowledge, commitment and adherence to ethical principles of the teaching profession.

Table 2: Contrasts Between the Education Profession and other Profession

In the Education Profession	In other Profession
1. The practitioner works with 30 or more clients simultaneously.	1. The practitioner deals with one client at a time.
2. The relationship is adult to child/youth.	2. The relationship is mostly adult to adult even on behalf of a child.

3. Treatment is conducted in a class-room with 30 or more other clients, observing and hearing all that takes place.	3. Treatment is conducted in a privat room with one client.
4. Treatment continues 4-6 hours for at least 180-200 days a year.	4. Client sees practitioner by appointment, and period is normally brief.
5. A multitude of problems must be dealt with continuously and constantly.	5. The client consults the expert usually regarding one specific problem.
6. Results of treatment are long range and not immediately evident.	6. Experts advice usually brings immediately identifiable results.
7. Results are intangible concerning attitudes and behaviours.	7. Results are tangible even immediately visible.
8. Compensation derives from public funds.	8. The client is expected to pay the practitioner directly.
9. The client is required to submit to the treatment by law.	9. The client voluntarily seeks expert services.
10. Legal responsibility for the welfare of children is complex i.e. involving parents.	10. Legal responsibility is direct and from adult to adult (except child medicare, perhaps).
11. The client has no/little choice in the selection of the practitioner.	11. The client choses his expert, and can change choice at will.
12. Communication to the adult world is through the minds of children, often creating misunderstandings.	12. Communication is adult to adult, often without intermediary.

Source: Eva Washington: "How do we compare" California Teachers Association Journal, LXV, May 1969, p.18.

From the above analysis it may be said that teaching is a profession and from a sceptic point of view a semi-profession. If teaching is a semi-profession, then one may still compare the difference between a profession and semi-profession as shown in Table 3.

Table 3: Differences between professionals and semi-professionals

Category	Professional	Semi-professional
1. Knowledge	1. Creation & application	1. Communication
2. Privileged Communication	2. Protected	2. Less likely to be protected
3. Concern with life	3. Often	3. Seldom
4. Autonomy	4. Considerable	4. Lacking
5. Control by whom	5. Internal & professional code	5. External (Lay Boards Administrators)
6. Organization in which practitioner works	6. Independent or less bureaucratized	6. Bureaucratic
7. Sex	7. Predominantly male	7. Predominantly female
8. Years of Training	8. Five years or more	8. Five years of less

From the above analysis is teaching a profession or semi-profession?

XII. Improving the Effectiveness of Teachers

Does it really matter whether teachers think of themselves or are thought of as professionals or semi-professionals? What wrong can be done if teachers consider and behave as professionals? The only argument against such thought is for teacher to consider themselves as professionals when they lack sufficient base in the field of their specialization. Teachers with a sound and sufficient knowledge in their subject and specialization should be treated as professionals. However, arguments have been advanced that teachers are poorly paid, treated as subordinates and given little freedom and autonomy by the school administrators. This tends to affect their standing in society and in the eyes of the pupils. Unless they are given a measure of self respect, they cannot perform their duties effectively as professionals.

If teachers are not professionals, then we might think of them as a functionary i.e. that the teacher is a subordinate member of an organization, a bureaucracy in the sociological sense and that his role in that system is largely determined for him. Modifications in that role are made in the interest of the goals of the system and the individual must either accept this role or seek a setting where the role is more to his liking. Many of the activities done by teachers such as the use of instructional materials, official time-keeping, number of periods tought, represent the bureaucratic role expectations of teachers.

Many factors governing the behaviour of teachers are outside their control. The law requires teachers to be present at school even if they are not teaching; they are given students and what textbooks and instructional materials to use without being consulted.

To improve the effectiveness of teachers, it is important to analyse the factors which limit the decision making of teachers, viz:

(1) The School as a scoializing agent

Citizens establish and finance schools so that all children should attend to perpetuate the values of society. Schools exist in large measure to socialize young people into an adult society. At the same time the traditions, customs and mores of the people influence schools. If teachers are to be effective in moulding the youth to fit into society, they should take into account the traditions, customs and mores of the people. Many decisions by teachers are limited by the fact that a school is a socializing agent and they must act within that context.

(2) Specific Functions of the Schools

Schools provide a basic education programme of studies prescribed for teachers by the establishment ministry of education or the state. Teachers are only actors playing the roles which have been assigned to them by the State. They cannot take decisions which go beyond their assigned roles, nor can they act or behave in a manner contrary to what is expected of them. If teaching is to be made more effective, it is necessary to give as much autonomy to teachers as is operationally possible.

(3) Goals of Community/Society

Decision making of the teachers may be limited by the desires, goals and expectations of society or community. The community may want schools to teach the political creed or ideology of the country against their will. Teachers in rural areas may be following the same syllabus as urban schools even when they are convinced that the education they are giving the youth does not equip them with the necessary knowledge, skills and attitudes for a productive life in rural areas. Teachers should therefore take into account the goals and expectations of the community if they are to be effective, especially when teaching subjects which are controversial.

(4) Teachers' Competence

In every profession, there must be some individuals who are incompetent, not intellectually capable, who have a limited knowledge of the subject they are teaching, who are unproductive and who for one reason or another dislike students/pupils.

If wer are to help pupils/students in whatever they are learning, incompetent teachers need guidance, help, assistance and where necessary in-service training just as much as the competent ones do. It is also necessary to have rules, policies and procedures to guide and occassionally control both the competent and incompetent teachers. If competent teachers have to keep pace with the changing technology of teaching, curriculum and teaching methods, they too need refresher courses, in-service training and up-grading courses. The competence of the teacher is of utmost importance to the teaching profession.

(5) Teacher Turnover

In many countries, teachers are not well paid; their chances of promotion are almost nil and their conditions of services not as good as those other workers paid from government fund. There are perhaps few countries where teachers have the same conditions of service as civil servants and equal pay or same/similar salary scales. As a result, teachers turnover is very high in countries where job opportunities exist.

In Africa, many of the schools are in rural areas whereas teacher training colleges/institutions are in urban areas or towns. Teachers graduating form colleges may be going to rural areas for the first time, having done all their education in urban areas. Such teachers are likely to leave the profession out of frustration with rural life. In certain cases it may be necessary to give incentives to teachers going to rural areas to reduce teacher turnover.

(6) Limitation of human financial and instructional facilities

Many schools in Africa operate within the context of serious shortages of teachers. In some schools, the proportions of untrained teachers is higher than that of qualified teachers. Thus the untrained teachers also have a full teaching load, and sometimes with a load higher than the national maximum allowed by the state. The untrained teacher therefore receives no or little guidance from the few qualified teachers teaching at the same school.

A second aspect connected with teacher shortage is the high pupil/teacher ratio. In some countries a teacher has been known to teach sixty/seventy primary school pupils in one class. Certainly in a class of this size, the teacher has no time to give individual attention to the pupils, let alone mark one third of the exercise books of the pupils during an ordinary period of 36/40 minutes duration. Conversely some rural schools have been known to operate with very small class sizes that such schools have become uneconomic to run.

A third aspect is the lack of facilities in many primary schools - no adequate classrooms and hence the need to operate a double-shift system, or to conduct classes in the open space or under a tree; lack of desks, chairs or benches, no laboratories or libraries, and accommodation for the teaching staff. Besides, many rural schools do not have accommodation for teachers and hence many teachers leave rural schools.

Textbooks, stationery, and instructional materials are often in short supply, and many schools have to do with a teacher as the only source of information. As textbooks are usually prescribed by the Ministry of Education, and all pupils must take the same examinations at the end of the programme, teachers are not given any freedom to use other textbooks not recommended by the state. Teachers cannot change the prescribed textbooks set by the Ministry of Education.

(7) Limitations arising from National Education System

A national education system can be a major factor in limiting the decision making of teachers and affect their effectiveness in teaching. Central administration many decree that teachers cannot give accelerated promotion for pupils of exceptionals abilities; or that even in the most uneconomic schools, a teacher is not allowed to have a mixed class; i.e. that pupils of two or three grades cannot be in one class being taught by one teacher but having different topics according to their grades.

A second aspect of the national education system is that all schools irrespective of their locality must follow a common curriculum, a common syllabus and must start and end on the same day except where permission has been obtained from higher authority. With such a common syllabus, all student/ pupils must sit for the same examinations beginning and ending on the same day.

In this way the country can keep to the same standards and ensure that the rural areas do not have a different standard from urban areas. Teachers must ensure that they complete the syllabus and they should not as far as possible teach topics outside the syllabus. In any case, they must make sure that they have prepared their pupils/students adequately to pass the national examinations. After all, in many countries parents judge the quality and ability of teachers by the examination successes of their children. Many teachers therefore simply prepare pupils/students to pass examination and anyone who passes a national examination has been adequately prepared to play some role in society. Thus the possession of a certificate ensures that one is employable even if one cannot get a job immediately.

A third major factor which may limit teachers decision making is the national textbooks system. Because schools must follow a common syllabus, they must also have common textbooks Teachers cannot use any textbooks other than those prescribed by the national education body/board responsible for education: the curriculum, syllabus, examination etc. The supply of textbooks too is through the same channel for every school. If there is a delay by the national supplier of textbooks, the delay is for everybody and not just one school. A teacher may find one book more suitable to his class than one which is prescribed by the national body/board, but he is bound by regulation to use the book prescribed and not the one he considers more appropriate to his needs.

Finally, most countries in Africa have the same national accrediting agency or certifying agency/organization; such a body will ensure that all schools conform to the same standards irrespective of where they are in the country. The effect of a national education system is that all schools operate in a similar manner, and that teachers are bound by the national education system to prepare pupils/students for accreditation by a national body.

XII. The Code of Ethics for Teachers

Since the quality of education reflects the ideas, motives, ability, preparation and conduct of the members of the teaching profession, it is important that whoever chooses teaching as a career, assumes the obligation to conduct and behave himself in accordance with the ideals of the profession as enunciated by some of the following ethical principles:

1. The primary obligation of the teaching profession is to guide pupils/students, youth and even adults in the pursuit of knowledte and skills; to prepare them in every way and make them become happy, useful and self-supporting citizens. The ultimate strength of a nation lies in the social responsibility, economic competence and moral strength of individuals. To fulfil this oblication the teacher must:

a. deal justly and impantially with pupils students irrespective of their physical, mental, emotional, political, economic, social racial or religious characteristics or background;

b. recognize differences among students and seek to meet their individual needs;

c. encourage students to formulate and work for high individual goals in the development of their physical, intellectual, creative and spiritual endowment;

d. help pupils/students to develop an understanding of their country's philosophy, nationalism and approach to development;

e. respect the right of every student to have confidential information about himself/herself withheld except when its release is to the authorized agencies or required by law;

f. accept no renumeration for providing remedial lessons or an extra class unless this is in accordance with national education policy.

(2) Members of the teaching profession share with parents the task of shaping each student's purposes and must therefore act towards socially acceptable ends. The effectiveness of shaping the child's future is also dependent on the co-operative relationship between the school and home. To fulfil this obligation, the teacher must:

a. respect the basic responsibility of parents for their children;

b. seek to establish friendly and co-operative relationship with the home;

c. help the pupils/students to increase confidence in his own home and avoid disparaging remarks which might undermine that confidence;

d. provide parents with information that will serve the best interests of their children, and should be discreet with information received from parents;

e. keep parents informed about the progress of their children as interpreted in terms of the purposes of the school.

(3) The teaching profession occupies a position of public trust involving not only the individual teacher's conduct, but also the interaction of the school and the community. Education is most effective when these relationships operate in a friendly, co-operative and constructive manner. In fulfilling the obligation of this principle the teacher should:

a. adhere a reasonable pattern of behaviour acceptable by the community as befitting people of the teaching profession;

b. perform citizenry duties expected of him and participate in community activities with due consideration for his primary obligations to his pupils/students, his family and himself;

c. discuss controversial issues from an objective point of view thereby keeping his class free from partisan opinions;

d. recognize that schools belong to the people of the community; encourage participation in shaping the purposes of the school and strive to keep the public informed of the educational programme which is being provided by the school;

e. respect the community in which the school is situated, be loyal to the school system, community, the district and the nation;

f. Work to improve education in the country, and to strengthen the community's and country's moral, spiritual and intellectual life .

(4) Members of the teaching profession have inescapable obligations with respect to their own employment. These obligations are nearly always shared employer/employee responsibilities based upon mutual respect and good faith. To fulfil the obligations of this ethical principle a teacher must:

a. conduct professional business through proper channels;

b. refrain from discussing confidential and official information with unauthorized persons;

c. adhere to the conditions of a contract until service there-under has been performed; the contract has been terminated by mutual consent, or it has been legally terminated by either party;

d. be fair in all recommendations which are given concerning the work of other teachers;

e. engage in no gainful employment outside of his teaching contract where such employment would adversery affect his professional status or impair his standing with students, associates, or the community;

f. co-operate in the development of school policies and assume ones professional objections in upholding such policies;

g. accept one's professional obligations to the country's ministry of education or the country's employing agency for maintaining a professional level of service.

(5) The teaching profession is distinguished from other occupations by the uniqueness and quality of the professional relationships among all teachers. Community support and respect are influenced by the standards of teachers and their attitudes towards teaching and other teachers. To fulfil these obligations, the teacher must:

a. deal with other members of the profession in the same manner as he/she himself/hereself wants to be treated;

b. stand by other teachers who have acted on his behalf or at his request;

c. speak constructively of other teachers and report honestly to responsible officers in matters involving the welfare of students, the school system, and the profession;

d. seek to make professional growth continuous by such procedure as study, research, travel, conferences, seminars, in-service training, meetings etc.;

e. make the teaching profession so attractive in ideals and practices that prospective teachers will want to enter it; and

f. support professional organizations and through participation strive to attain the objectives of teaching organizations/associations.